# Welcome

Congratulations on your purchase of this Sony VAIO® computer, and welcome to the online VAIO® Computer User Guide. This user guide provides detailed information on all aspects of using your new VAIO computer, from keyboard functions to preinstalled software programs.
In the left navigation window, click the topics you want to learn more about, and that information will be displayed in this main window.

View the Electronic Flyer, which provides updates and supplemental information about your computer.

View the VAIO® Computer Specifications, which lists your computer's hardware specifications and preinstalled software information, such as descriptions and contact information.

# Powering Your Computer

Your VAIO® computer comes with a battery and an AC adapter. This chapter explains how to install and use these supplied accessories to power your computer. It also describes ways you can efficiently utilize the battery as a power source.


- Using AC Power
- Using the Battery
- Conserving Battery Power

## Using AC Power

The supplied battery is not charged when you receive your computer. To use your computer immediately, use the supplied AC adapter as the power source. While the computer uses AC power, it automatically charges the battery if it is inserted. See Using the Battery for more information on installing and using your battery.

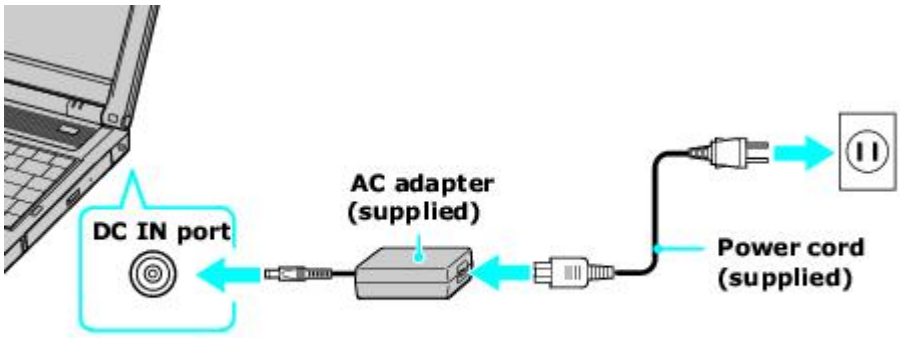
- Connecting the AC adapter
- Turning on the computer

## Connecting the AC adapter

### To connect the AC adapter

1. Plug the AC adapter cable into the DC IN port.

***Connecting the AC Adapter to the Computer***




2. Plug the power cord into the AC adapter and an AC outlet.

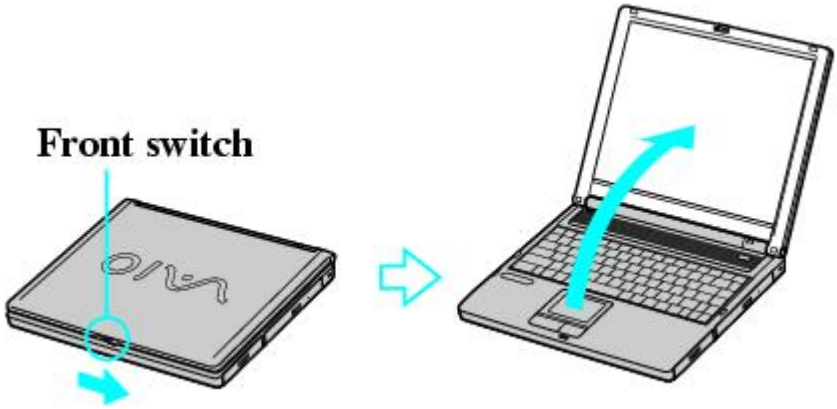
Use only the supplied AC adapter with your computer.

## Turning on the computer

**To turn on the computer**

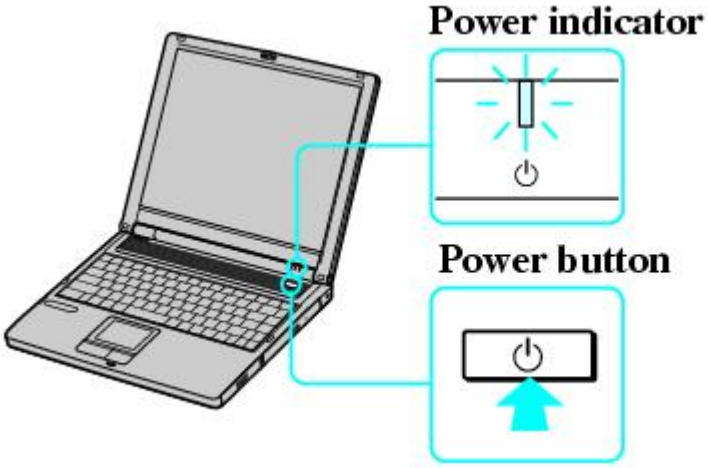
1. Lift the lid of the computer by sliding the front switch to the right and lifting the lid. You may need to hold the bottom of the computer firmly to lift the lid.

***Opening the Computer***




2. Press the power button until the power indicator turns on.

***Turning on the Computer***




If you hold the power button down, the computer turns off.

3. If the computer screen is too dark or too bright, follow these steps to adjust the brightness:

- To increase brightness, press the **Fn** and **F5** keys, and then press the **Up Arrow** ↑ or the **Right Arrow** → key.
- To decrease brightness, press the **Fn** and **F5** keys, and then press the **Down Arrow** ↓ or the **Left Arrow** ← key.

## Using the Battery

Your computer comes equipped with one battery, which is not fully charged at the time of purchase. To use your computer immediately, use the supplied AC adapter as the power source. While the computer uses AC power, it automatically charges the battery if it is inserted. See Connecting the AC adapter. For information on how to extend the life of the battery, see Conserving Battery Power for more information.

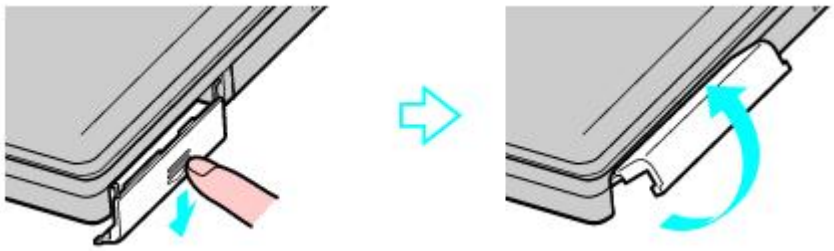
- Inserting a battery
- Removing a battery
- Locating battery information
- Charging a battery
- Notes on batteries
- Frequently asked questions

## Inserting a battery

### To insert a battery

1. Push the battery bay cover down to open it. The battery bay cover swings out but does not detach from the computer.

***Opening the Battery Bay***



2. Slide the battery into the battery bay. If the computer is on, it automatically detects the battery.

***Inserting a Battery***

3. Push the battery bay cover up until it clicks into place.

Some programs and peripheral devices prevent the system from automatically entering Hibernate mode. If you are using battery power, save your data frequently to avoid data loss and manually activate a power saving mode. See Using power saving modes for more information.

## Removing a battery

If you are not using the computer for an extended period of time, remove the battery from the computer to avoid damaging the battery. You can remove the battery when the computer is on or off.

**If the computer is on, connect the AC adapter and exit a power saving mode before you remove the battery.**

### To remove a battery

1. Push the battery bay cover down to open it.
2. Pull the battery out of the battery bay.
3. Push in and lift up the battery bay cover until it clicks into place.

***Removing a Battery***

## Locating battery information

You can display information for each of the batteries installed in your computer.

### To view battery information

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears.
3. Select the **Power Meter** tab. The total remaining battery charge is listed as a percentage. If your computer comes with more than one battery, you can view information on both batteries or just the primary battery.

You may also use the power icon on the Windows® taskbar to quickly view battery information. See To display the power icon on the taskbar for instructions on how to set up this shortcut.

### To display the power icon on the taskbar

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears.
3. Select the **Advanced** tab, and then select **Always show icon on the taskbar** in the **Options** box. The power icon appears on the taskbar. See the power icon descriptions below for more information.

You can rollover the power icon to view the remaining battery charge, and you can double-click the power icon to open the Power Meter window, which also displays the remaining battery charge.

| Power icon | Power status |
|---|---|
| | Computer is using AC power. |
| | Computer is using AC power and charging the battery. |
| | Battery is charging. |
| | Battery is fully charged. |
| | Battery is discharging. |
| | No battery is inserted in the computer. |

## Charging a battery

You will need to charge the battery if battery power drops below 10 percent or you have not used the battery for a long time. The lithium-ion battery supplied with your computer may be recharged at any time, whether you wait until the battery is completely or partially discharged. Charging a partially discharged battery does not affect battery life. If you charge the battery and find that battery power is still low, the battery may be reaching the end of its life, and you may need to replace it.

The battery supplied with your computer is not charged at the time of purchase.

### To charge a battery

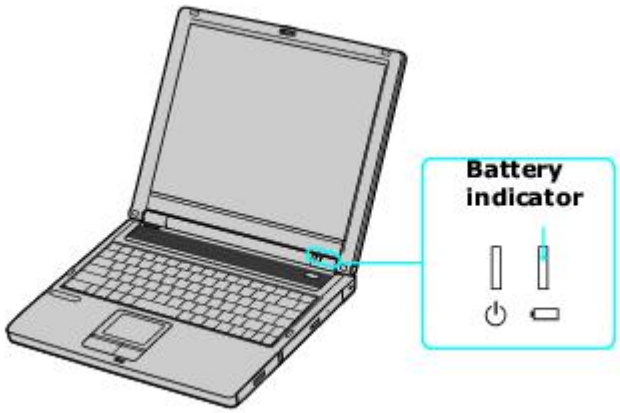
You can charge the battery when the computer is on or off. However, the battery will charge faster when the computer is off. Charging the battery takes several hours. See your VAIO® Computer Specifications on the Welcome page for the approximate time needed to charge your battery.

Charge the battery at temperatures between 50°F and 80°F (10°C to 30°C). Lower temperatures require more time to charge.

1. Insert the battery into the battery bay.
2. Connect the AC adapter to the computer. The computer automatically charges the battery as long as the computer is using AC power.

The battery indicator blinks while the battery charges. The battery indicator stops blinking when the battery is fully charged.

***Battery Indicator***




| Battery indicator status | Description |
|---|---|
| On | The computer is using battery power. |
| Single blink | The battery is running out of power. |
| Double blink | The battery is charging. |
| Off | The computer is using AC power. |

## Notes on batteries

- Never leave the battery in temperatures above 140°F (60°C), such as under direct sunlight or in a car parked in the sun.
- While the battery is in use or being discharged, the battery heats up. This is normal and is not cause for concern.
- Keep the battery away from all sources of heat.
- Keep the battery dry.
- Do not open or disassemble the battery.
- Do not expose the battery to any mechanical shock.
- Battery life is shorter in a cold environment because of decreased battery efficiency at low temperatures.

## Frequently asked questions

**How do I know when the battery is charged?**

To determine the remaining battery charge, see Locating battery information.

**When is the computer using AC power?**

When the computer is directly connected to the AC adapter, it uses AC power, even if a battery is installed.

**When should I recharge the battery?**

- When the battery level falls below 10 percent.
- When both the battery and power indicators blink.
- When you have not used the battery for a long time.

**When should I replace the battery?**

If, after charging the battery, the battery power is still low, the battery may be reaching the end of its life and should be replaced.

**Should I be concerned that the installed battery is warm?**

No, it is normal for the battery to be warm when it is powering the computer.

## Conserving Battery Power

You may use the power saving modes and power schemes to conserve battery power. Conserving battery power may significantly extend your computing time, depending on how you use your computer.

- Using power saving modes
- Using power schemes
- Frequently asked questions

## Using power saving modes

In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: Standby and Hibernate. Use the Standby and Hibernate power saving modes to override a profile setting or initiate an immediate action.

- **Standby** — Saves the state of the system and peripheral devices in memory (RAM). Power consumption is reduced to a minimum. The system remains on, and the computer screen (LCD) is off.

- **Hibernate** — Saves the state of the system and peripheral devices to the hard disk. Power consumption is reduced to the lowest possible setting without being completely off. Hibernate mode consumes the lowest level of power. Your computer enters Hibernate mode when the remaining battery charge drops below 5 percent, regardless of the setting you select.

✍ Since some software programs and peripheral devices prevent the system from entering Hibernate mode, save your data frequently to avoid data loss.

### To activate Standby mode

1. Click **Start** on the Windows® taskbar, and select **Turn Off Computer**.
2. Click **Stand By** when the **Turn off computer** window appears. The power indicator blinks in this mode.
3. Press any key to return to normal mode.

### To activate Hibernate mode

1. Press the **Fn+F12** keys, or press the power button and release it immediately. Do not move the computer until the power indicator turns off.
2. Press the power button to return to normal mode.

✍ If the computer does not activate Hibernate mode, see Frequently asked questions for more information.

## Using power schemes

You can use the preset power schemes or you can customize the power profiles to conserve power. By using the power schemes and power profiles, you control the power supplied to different devices, such as the computer screen (LCD) and the hard disk drive, in your computer. You also control when the computer activates a power saving mode (Standby or Hibernate).

### To set your battery alarm

You can change your computer settings to notify you when the battery power reaches a certain level.

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears.
3. Select the **Alarms** tab, and then select the type of alarm you want the computer to activate: a low or a critical battery alarm.
4. Drag the slider to the battery level at which you want the computer to activate the alarm. The **Low battery alarm** is set to 10 percent, and the **Critical battery alarm** is set to 5 percent by default.

✍ To further customize your alarm settings, click **Alarm Action**. You can select the type of alarm you want the computer to activate and how you want the computer to respond to the alarm in this window.

### To select a power scheme

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears with the **Power Schemes** tab selected.
3. Select a power scheme from the drop-down menu in the **Power schemes** box. Each power scheme is preset to utilize your power supply efficiently, according to your computing functions. Select the power scheme that best explains how you want to use your computer.
4. Click **Apply**. The computer detects your changes.

### To create a power scheme

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears with the **Power Schemes** tab selected.

   ✍ You can also right-click the power icon on the Windows® taskbar, and select **Adjust Power Properties** to open the **Power Options Properties** window.
3. Select your changes from the drop-down menus in the **Settings for Portable/Laptop power scheme** box, and click **Save As** in the **Power schemes** box. The **Save Scheme** window appears.
4. Type a name for your customized power scheme, and click **OK**. The power scheme you created appears in the **Power schemes** box.

✍ If you want to delete a power scheme, select the power scheme, and click **Delete**. When the **Delete Scheme** window appears, click **Yes**.

### To customize your power properties

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears.

   ✍ If you want to access the power scheme information quickly from the Windows® taskbar, see To display the

power icon on the taskbar for more information.

3. Select the **Advanced** tab, and select your changes from the drop-down menus in the **Power buttons** box. See Using power saving modes for information on how Standby and Hibernate modes affect power consumption.

4. Click **Apply**. The computer detects your changes.

✍ To activate Hibernate mode, you may first need to enable it. See Frequently asked questions for more information.

## Frequently asked questions

### Can my computer enter Hibernate mode while using battery power?

Your computer can enter Hibernate mode while using battery power, but some software programs and peripheral devices prevent the system from entering Hibernate mode at all. If you are using a program that prevents the system from entering Hibernate mode, save your data frequently. See To activate Hibernate mode for information on how you can manually activate Hibernate mode.

### Why doesn't my computer enter Hibernate mode?

You may first need to enable Hibernate mode. Follow these steps:

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears.
3. Select the **Hibernate** tab.
4. Click to check the box next to **Enable hibernation**.

# Internet and Network Connections

- Internet Connections
- Network Connections
- Connecting Another VAIO Computer

## Internet Connections

This section describes the basic steps for setting up your dial-up or Ethernet connection to the Internet. The New Connection Wizard guides you through the process of connecting to the Internet and choosing an Internet service provider (ISP) or setting up an existing account. When you connect to the Internet, you can register your VAIO® computer, use online services, and gain access to Sony Computing Support.

- Setting up a dial-up Internet connection
- Setting up an Ethernet Internet connection
- Customizing your Internet connection
- Frequently asked questions

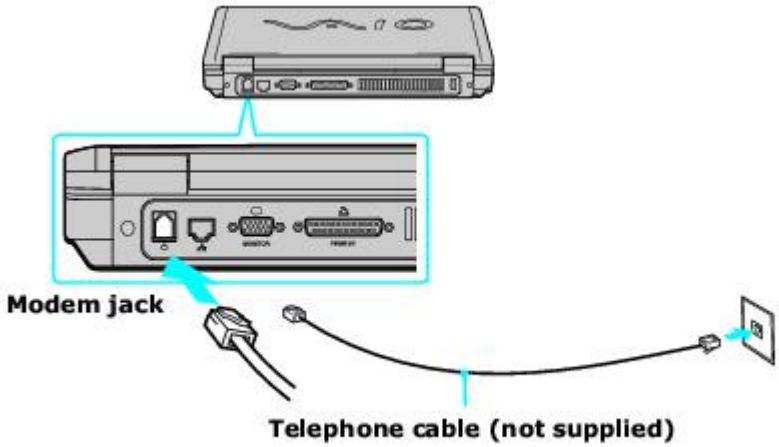
## Setting up a dial-up Internet connection

Before you can connect to the Internet, you need to connect your computer to a telephone line via a telephone cable (not supplied). Once you set up your telephone cable, you're ready to connect to the Internet.

### To connect a telephone cable

1. Locate the Modem jack on your computer. For location information, see Locating Ports and Controls in the Setting Up chapter of your printed VAIO® Computer Quick Start.
2. Plug one end of the telephone cable into the Modem jack. Make sure it clicks into place.
3. Plug the other end into the wall jack.

***Connecting a Telephone Cable***




Your computer does not work with party lines, cannot be connected to a coin-operated telephone, and may not work with multiple telephone lines or a private branch exchange (PBX). Some of these connections may result in excess electrical current and could cause a malfunction in the internal modem.

If you connect a telephone cable coming through a splitter, the modem or connected device may not work properly.

### To set up a dial-up connection to the Internet

1. Connect your computer to a telephone line. See To connect a telephone cable for more information.
2. Click **Start**, point to **All Programs**, **Accessories**, **Communications**, and click **New Connection Wizard**. The **New Connection Wizard** appears.

***New Connection Wizard***

3. Click **Next**. If the **Location Information** wizard appears, follow the on-screen instructions, and then close the **Location Information** wizard.
4. If it is not already selected, click to select **Connect to the Internet**, and click **Next**.
5. Follow the on-screen instructions.

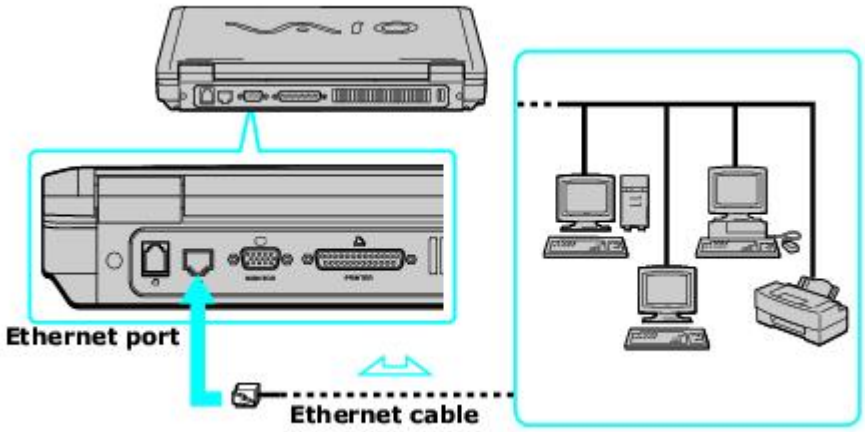
## Setting up an Ethernet Internet connection

Your computer accommodates both 10BASE-T and 100BASE-TX Ethernet connections, with data transfer speeds of between 10 and 100 Mbps.

### To connect an Ethernet cable

1. Locate the Ethernet port on your computer. For location information, see "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start guide.

***Connecting an Ethernet Cable***




2. Plug one end of the Ethernet cable into your computer's Ethernet port and the other into the network connection.

### To set up an Ethernet connection to the Internet

1. Connect your computer to a network connection.
2. Click **Start**, point to **All Programs**, **Accessories**, **Communications**, and click **New Connection Wizard**. The **New Connection Wizard** appears.

***New Connection Wizard***

3. Click **Next**. If the **Location Information** wizard appears, follow the on-screen instructions, and then close the **Location Information** wizard.
4. If it is not already selected, click to select **Connect to the Internet**, and click **Next**.
5. Follow the on-screen instructions.

## Customizing your Internet connection

The Internet Properties dialog box enables you to change the way you view the Internet. You can change your home page, fonts, language, and colors. You can also regulate content and set browsing preferences.

**To open the Internet Properties dialog box**

1. Click **Start** on the Windows® taskbar, and then **Control Panel**.
2. Click **Network and Internet Connections**, and then **Internet Options**. The **Internet Properties** dialog box appears.
3. Click the tabs to view options.
4. Make changes, and click **Apply** to activate your changes.
5. Click **OK**.

## Frequently asked questions

### Why doesn't my modem work?

- Make sure the telephone cable is securely plugged into the Modem jack on the computer and the wall jack. See To connect a telephone cable for more information.
- Make sure the telephone cable is working. Plug the cable into an ordinary telephone and listen for a dial tone.
- Make sure the telephone number the program is dialing is correct.
- Make sure the software you are using is compatible with the computer's modem. (All preinstalled Sony programs are compatible.)

### Why is my modem connection slow?

Your computer is equipped with a V.90 compatible modem. Many factors may influence modem connection speed, including telephone line noise or compatibility with telephone equipment, such as fax machines or other modems. If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider (ISP), follow these steps:

- Ask your telephone company to verify your telephone line is free of any line noise.
- If your problem is fax-related, make sure there are no problems with the fax machine you are calling and that it is compatible with fax modems.
- If you are having a problem connecting with your ISP, make sure the ISP is not experiencing technical problems.
- If you have a second telephone cable available, try connecting the modem to that cable.

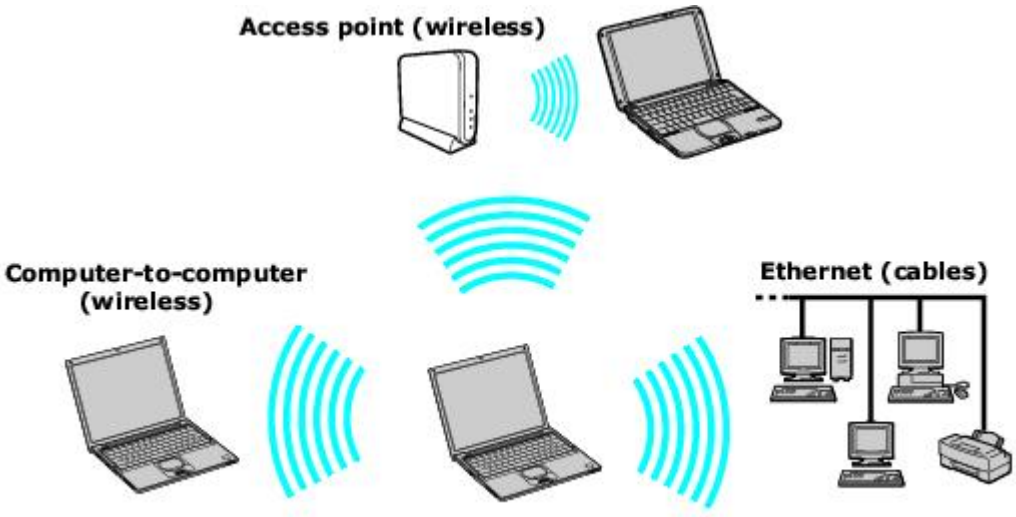
# Network Connections

With a Sony computer, you can easily set up or connect to a variety of networks. The New Connection Wizard and Network Setup Wizard make it easy to gain access to remote and local area networks (LANs) using wireless, Ethernet, or dial-up connections.

For more information about networking, click **Start**, **Help and Support**, and then **Networking and the Web**.

- Using Ethernet and dial-up connections

***Types of Networks****




* The computers represented in this graphic may not be identical to the model you purchased.

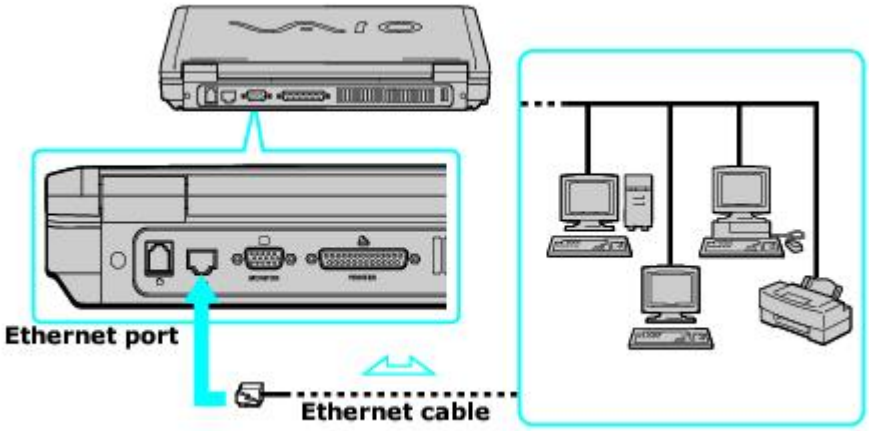
## Using Ethernet and dial-up connections

For setting up local area networks (LANs), Ethernet is a widely installed technology. Your computer accommodates both 10BASE-T and 100BASE-TX Ethernet connections, with data transfer speeds of between 10 and 100 Mbps.

**To connect to a local area network using a telephone or Ethernet cable**

1. Connect an Ethernet or telephone cable to your computer. See To connect an Ethernet cable and Setting up a dial-up Internet connection for more information.

***Connecting an Ethernet Cable***




2. Click **Start**, point to **All Programs**, **Accessories**, **Communications**, and click **Network Setup Wizard**. The **Network Setup Wizard** appears.

***Network Setup Wizard***

3. Click **Next**. If you are prompted to the **Local Information** window, follow the on-screen instructions, and then close the window.

4. Follow the **Network Setup Wizard** instructions.

⚠ **Only connect 10BASE-T and 100BASE-TX cables to the Ethernet port. Do not connect any other type of network cable or any telephone cable. Connecting cables other than those listed above may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the port. To connect the unit to the network, see Using Ethernet and dial-up connections or contact your network administrator.**

You can connect to your company network from a remote location and use data, programs, and network resources. See Microsoft® Windows® Help by clicking **Help and Support** from the **Start** menu, and then clicking **Networking and the Web** in the left panel.

**To connect to a remote network using a telephone or Ethernet cable**

1. Connect an Ethernet or telephone cable to your computer. See Connecting an Ethernet Cable and Setting up a dial-up Internet connection for more information.

2. From the **Start** menu, point to **All Programs**, **Accessories**, **Communications**, and click **New Connection Wizard**.

3. Click **Next**. If you are prompted to the **Local Information** window, follow the on-screen instructions, and then close the window.

4. Click **Connect to the network at my workplace**, and then click **Next**.

5. Follow the on-screen instructions.

6. Ask your network administrator for the detailed settings and devices needed to connect to an existing network.

# Connecting Another VAIO Computer

The preinstalled Microsoft® Windows® XP operating system enables you to connect a compatible i.LINK®[1] cable (not supplied) between your VAIO® computer and another compatible computer.

- Connecting VAIO computers
- Disconnecting VAIO computers
- Frequently asked questions

[1] i.LINK is a trademark of Sony used to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software programs, operating system, and compatible i.LINK devices. All products with an i.LINK connector may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

## Connecting VAIO computers

When you connect two VAIO computers, you can use one computer to edit, copy, or delete files on the other computer. You can also print from a printer attached to either computer.

### To connect VAIO computers

1. Plug one end of the i.LINK cable into the i.LINK port on each computer.
2. Click **Start** on the Windows® taskbar, and click **Control Panel**.
3. Click **Network and Internet Connections**, and click **Set up or change your home or small office network**. The **Network Setup Wizard** appears.

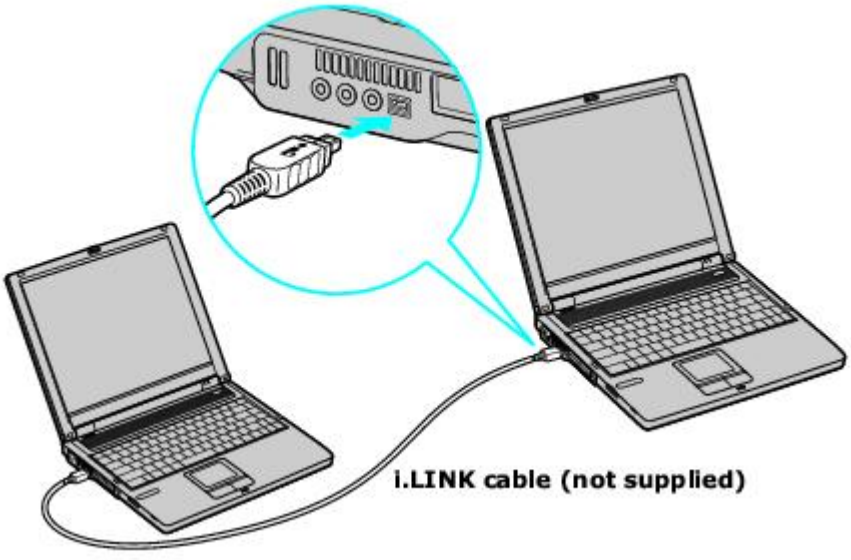
***Network Setup Wizard***

4. Follow the on-screen **Network Setup Wizard** instructions.
5. When you are prompted, type in a unique computer name for each computer. You will use this unique name to differentiate the two computers once they are networked together.

   ✍ The Workgroup name should remain the same for the two networked computers.

6. When you finish the **Network Setup Wizard** on-screen instructions, click **Start** on the Windows® taskbar and click **My Computer**.
7. Click **My Network Places** in the **Other Places** menu. The **My Network Places** window appears.
8. Click **View workgroup computers** in the **Network Tasks** menu. Computers networked under the same workgroup name are displayed in this window.

***Connecting Another Computer***



## Disconnecting VAIO computers

You can disconnect two VAIO computers when the computers are on or off.

**To disconnect VAIO computers when the computers are on**

1. Close all open files that are shared with the connected computers.
2. Unplug the i.LINK cable from the i.LINK port on each computer.

**To disconnect VAIO computer when the computers are off**

- Unplug the i.LINK cable from the i.LINK port on each computer.

## Frequently asked questions

### Why can't I establish a connection between two VAIO computers?

- Your computer may not recognize an i.LINK[1] connection if the i.LINK cable is not plugged securely into the i.LINK ports. Disconnect the i.LINK cable and securely reconnect it to both computers. If neither computer responds after a few moments, restart both computers.

- If the computers do not recognize the i.LINK connection after resuming from a power saving mode (Standby or Hibernate), restart both computers. For more information, see Connecting VAIO computers.

[1] i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

# CDs and DVDs

- Inserting and Ejecting CDs or DVDs
- Copying and Playing CDs
- Playing DVDs

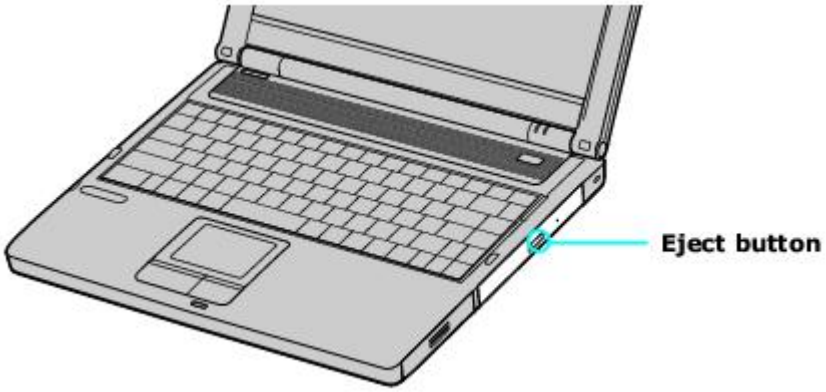
## Inserting and Ejecting CDs or DVDs

Avoid using adhesive labels to identify your CDs or DVDs. Adhesive labels may damage the optical drive if they come off while the disc is in the drive.

**To insert a disc**

1. Turn on the computer or exit a power saving mode (Standby or Hibernate) if one is active. For more information, see Using power saving modes.
2. Press the Eject button on the optical drive cover to open the drive tray. The drive tray slides out.

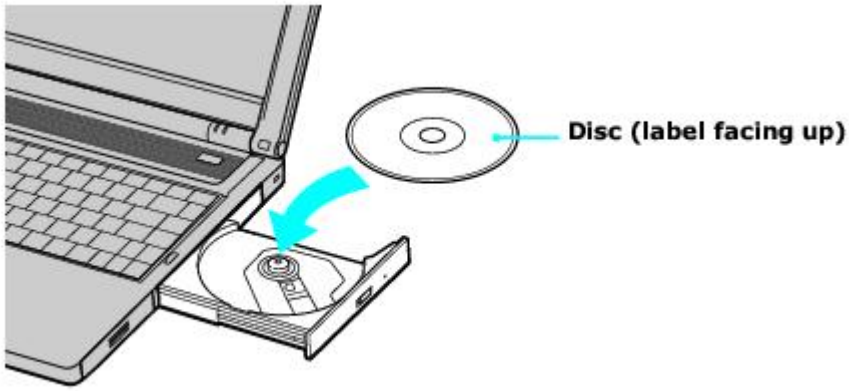
***Ejecting the Drive Tray***




3. Place a disc on the drive tray with the label facing up.

You can play some DVDs on both sides. Insert this type of DVD with the side you want to play facing up.

***Inserting a Disc***




4. Press the disc onto the hub until the disc clicks securely into place.

**If you do not seat the disc firmly over the hub, the disc may come loose while it is in the drive. A loose disc may damage the optical drive and make opening the drive tray difficult.**

5. Push the drive tray gently to close it. The Busy indicator on the drive cover blinks while your computer is reading data from the drive.

**To eject a disc**

1. Turn on the computer or exit a power saving mode (Standby or Hibernate) if one is active. For more information, see Using power saving modes.
2. Close all programs that access the optical drive, and wait for the Busy indicator on the drive cover to turn off.
3. Press the Eject button on the drive cover to open the drive tray. The drive tray slides out.

If the Eject button does not work, turn off the computer and insert a thin, straight object (such as a paper clip) into the manual eject hole next to the Eject button.

4. Lift the disc from the drive.

5. Push the drive tray gently to close it.

## Copying and Playing CDs

Your computer comes equipped with a CD-RW/DVD drive, which plays DVD and most DVD-R discs, and reads and writes data to CD-R and CD-RW discs.

- Playing CDs
- Copying files to a CD-RW or CD-R

## Playing CDs

Before you play an audio CD, you may need to enable your computer's audio feature.

### To enable the audio feature

1. Click **Start** on the Windows® taskbar, and then click **Control Panel**, **Performance and Maintenance**, and **System**. The **System Properties** dialog box appears.

   As a shortcut, you can press **Fn** + the **Windows** key + **Insert** to open the **System Properties** dialog box.

2. Select the **Hardware** tab, and in the **Device Manager** box, click **Device Manager**. A window with a listing of the computer's hardware devices appears.
3. Double-click the name of the optical drive to open the submenu.
4. Double-click the listed drive name, and select the **Properties** tab.
5. Click to select the **Enable digital CD audio for this CD-ROM device** check box if it is not already selected.
6. Click **OK**.

### To adjust the volume for playing CDs and DVDs

Some programs have built-in volume controls, which you can adjust. If there are no volume controls, then adjust the volume of your computer's built-in speakers by doing one of the following:

- Using the Function keys. An on-screen display may appear, notifying you when a change occurs.
  - To increase volume, press the **Fn**+**F4** keys, and then press the **Up Arrow** or **Right Arrow** key.
  - To decrease volume, press the **Fn**+**F4** keys, and then press the **Down Arrow** or **Left Arrow** key.
- Using the Volume icon.
  - Double click the **Volume** icon on the Windows® taskbar. The **Volume Control** dialog box appears.
  - In the **Volume Control** and **CD Player** columns, move the **Volume** sliders up to increase volume and down to decrease volume.

### To play an audio CD

1. Insert the disc into the optical drive. See To insert a disc for more information.
2. If nothing appears on the desktop once you insert an audio CD disc, then click **Start**, point to **All Programs**, and click to open a CD program, such as SonicStage.
   If the **Audio CD** window appears, click to select an option.

***Audio CD Window***

Audio CD (E:)
Windows can perform the same action each time you insert a disk or connect a device with this kind of file:
Music CD
What do you want Windows to do?
Play Audio CD using Windows Media Player
Play Audio CD using RealOne Player
Play Audio CD using SonicStage
Open folder to view files using Windows Explorer
Always do the selected action.
OK
Cancel

## Copying files to a CD-RW or CD-R

You can copy files to CD-R or CD-RW discs if your VAIO® computer is equipped with a CD-RW/DVD drive or DVD-RW drive. Before you write data to a CD-RW or CD-R disc, read the following notes to avoid a computer malfunction and ensure the best writing results:

- Deactivate the screen saver and exit anti-virus software.
- Deactivate memory-resident disc utilities to avoid data loss.
- Disable the FindFast program if it is installed on your computer. Click **Start** and point to **All Programs** to see a list of programs on your computer.
- Connect and use the AC adapter to power your computer or make sure your battery is at least 50 percent charged. See Powering Your Computer for more information.

**To copy files to a CD-RW or CD-R**

1. Insert a blank CD-R or CD-RWdisc into the optical drive. For more information, see Inserting and Ejecting CDs or DVDs.
   If the **CD Drive** window appears, click **Take no action**.

***CD Drive Window***

CD Drive (F:)
Windows can perform the same action each time you insert a disk or connect a device with this kind of file:
Blank CD
What do you want Windows to do?
Open writable CD folder using Windows Explorer
Take no action
Always do the selected action.
OK
Cancel

2. Open Windows Explorer by pressing the **Windows** key and the **E** key simultaneously.
3. In the **Folders** panel on the left, locate the file(s) or folder(s) you want to copy and either:
   - Right-click the file(s) or folder(s), point to **Send To**, and click the optical drive[1] name.
   - Drag the file(s) or folder(s) onto the optical drive icon in the **Files Stored on This Computer** panel.
4. Close Windows Explorer.
5. Click **Start**, and **My Computer**.
6. Click the optical drive icon under **Devices with Removable Storage**. A new window appears with the file(s) or folder(s) you want to copy listed under **Files Ready to Be Written to the CD**.
7. In the **CD Writing Tasks** box, click **Write these files to CD**.
8. Follow the instructions on the **CD Writing Wizard**.

***CD Writing Wizard***

CD Writing Wizard
Welcome to the CD Writing Wizard
This wizard helps you write, or record, your files to a CD recording drive.
Type the name you want to give to this CD, or just click Next to use the name below.
CD name:
Oct 16 2002
New files being written to the CD will replace any files already on the CD if they have the same name.
Close the wizard after the files have been written
< Back
Next >
Cancel

**Do not strike or shake the computer while writing data to a disc.**

[1] The read/write drive letter designation may vary, depending on your system's hardware configuration.

# Playing DVDs

You can play DVDs in your computer's optical drive and view the video on a TV. The type of optical drive installed in or connected to your computer may vary, depending on the model you purchased.

- Connecting your computer to a TV
- Playing DVDs on a TV
- Disconnecting your computer from a TV
- Playing DVDs on your computer
- Frequently asked questions

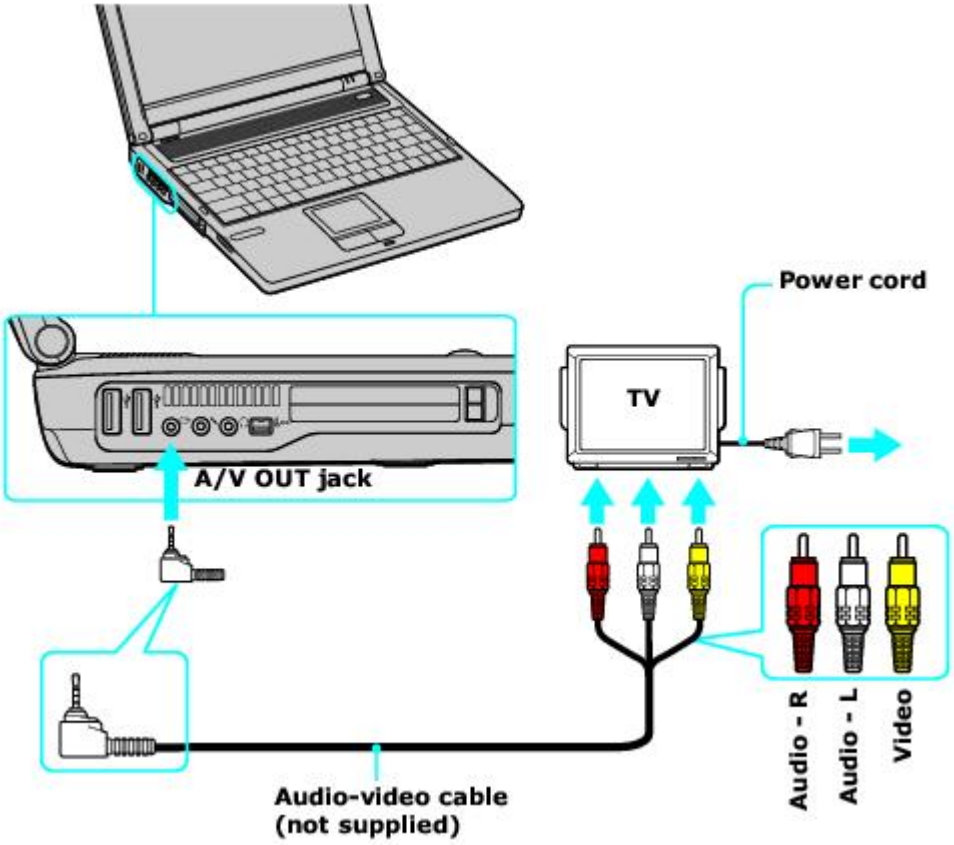
## Connecting your computer to a TV

Your computer is equipped with an A/V OUT jack, which enables you to connect your computer to a TV. To locate the A/V OUT jack on your computer, see "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start.

### To connect a TV to your computer

1. Locate the A/V OUT jack on the computer.
2. Plug one end of an audio-video (AV) cable (not supplied) into the A/V OUT jack.
3. Plug the other end of the AV cable into the audio and video ports on the TV.

***Connecting a TV***




4. Switch the TV input channel to external input.

See the guide that accompanied your TV for information on how to switch to external input.

## Playing DVDs on a TV

### To play a DVD

1. Close all open programs.
2. Disable the screen saver and the virus checker.
3. Change the power schemes to **Max Battery** if it is not already selected. See To select a power scheme for more information.
4. Connect the TV to the computer. See Connecting your computer to a TV for more information.
5. Press the **Fn+F7** keys to view the image on either the computer screen (LCD) or the TV. See Selecting a display for more information.

   **The Fn+F7 keys will not work once a DVD is inserted into the optical drive. Switching the display while a DVD is playing may cause the computer to malfunction, and you may need to restart the DVD software.**

6. Insert the DVD into the optical drive.
7. Open a preinstalled DVD program, such as InterVideo WinDVD®, by following these steps:
   1. Click **Start** on the taskbar, and point to **All Programs**.
   2. Select a program, such as InterVideo WinDVD, to play the DVD. For instructions on how to use a program, see the help guide included with the DVD program.

Systems equipped with a CD-RW/DVD drive can read most DVD-R media.

**Some discs recorded at 20 or 24 bits may produce noise while playing. If you have audio devices connected, this may damage your hearing and the speakers. Reduce the volume before playing a DVD.**

**Do not switch power saving modes while the computer is playing a DVD.**

**Do not use memory-resident utility software to speed up disc access when playing a DVD. This may cause the computer to malfunction.**

## Disconnecting your computer from a TV

Simply unplug the audio-video (AV) cable from the A/V OUT jack on the computer.

## Playing DVDs on your computer

Your computer is equipped with an optical drive that enables you to watch DVDs and most DVD-R discs on your computer.

**To play a DVD while using AC power**

1. Close all open programs.
2. Insert the DVD into the optical drive.
3. Open a preinstalled DVD program, such as InterVideo WinDVD®, by following these steps:
    1. Click **Start** on the taskbar, and point to **All Programs**.
    2. Select a program, such as InterVideo WinDVD, to play the DVD. For instructions on how to use a program, see the help guide included with the DVD program

**To play a DVD while using battery power**

1. Set the power schemes to **Presentation**. See To select a power scheme for more information.
2. To adjust the brightness of the computer screen (LCD):
    - To increase brightness, press the **Fn** and **F5** keys, plus the **Up Arrow** ↑ or the **Right Arrow** → key.
    - To decrease brightness, press the **Fn** and **F5** keys, plus the **Down Arrow** ↓ or the **Left Arrow** ← key.

    The lower the brightness the more battery power you conserve.

    ✍ For more information on conserving battery power, see Conserving Battery Power.
3. Insert the DVD into the optical drive.
4. Open a preinstalled DVD program, such as InterVideo WinDVD, by following these steps:
    - Click **Start** on the taskbar, and point to **All Programs**.
    - Select a program, such as InterVideo WinDVD 4, to play the DVD. For instructions on how to use a program, see the help guide included with the DVD program.

⚠ **Some discs recorded at 20 or 24 bits may produce noise while playing. If you have audio devices connected, this may damage your hearing and the speakers. Reduce the volume before playing a DVD.**

**Do not switch power saving modes while the computer is playing a DVD.**

**Do not use memory-resident utility software to speed up disc access when playing a DVD. This may cause the computer to malfunction.**

## Frequently asked questions

### How do I maintain CDs and DVDs?

- Avoid touching the surface of the disc with your fingers. Fingerprints and dust on the surface of the disc may cause reading errors.
- Try using canned compressed air to clean dusty discs.
- Do not clean the disc with solvents (such as benzine, thinner, alcohol, commercially available cleaners, or anti-static spray), which may damage the disc. To clean the disc, follow these steps:
    1. Hold the edge of the disc, and use a soft cloth to wipe the surface from the center out.
    2. If the disc is badly soiled, moisten a soft cloth with water, wring it out well, and use it to wipe the surface of the disc from the center out.
    3. Wipe off any remaining moisture with a dry, soft cloth.
- Do not drop or bend the disc.

### Why does my computer freeze when I try to read a disc?

- The disc your computer is trying to read may be dirty or damaged. Follow these steps:
    1. Restart the computer by clicking **Start**, **Turn Off Computer**, and **Restart**.
    2. Eject the disc from the optical drive.
    3. Examine the disc for dirt or damage. If the disc is dirty, see How do I maintain CDs and DVDs? for instructions on how to clean it.

### What do I do if the drive tray won't open?

- Make sure the computer is on.
- Press the Eject button on the optical drive.
- If the Eject button does not work, click **Start** on the Windows® taskbar, and click **My Computer**. Right click the optical drive icon, and select **Eject** from the shortcut menu.
- If none of the above options work, insert a thin, straight object (such as a paper clip) in the manual eject hole to the right of the Eject button.

### What do I do if the optical drive isn't playing my CD or DVD properly?

- Make sure the disc was inserted into the drive with the label facing up.
- Make sure the necessary program(s) is installed according to the manufacturer's instructions.
- If the CD or DVD is dirty or damaged, the computer will stop responding. Follow these steps:
    1. Restart the computer by pressing the **Ctrl+Alt+Delete** keys, and selecting **Restart** from the **Shut Down** menu of the **Windows Task Manger** dialog box.
    2. Remove the CD or DVD from the optical drive.
    3. Check the disc for dirt or damage. If you need to clean the disc, see How do I maintain CDs and DVDs? for instructions.
- If you are playing a CD or DVD and cannot hear sound, follow these steps:
    1. Double-click the **Volume** icon on the Windows taskbar, and click to cancel the **Volume Control** and **CD Audio Mute** check boxes.
    2. Check the volume setting in the audio mixer.
    3. If you are using external speakers, check the volume settings on the speakers and the connections

between the speakers and the computer.

4. Make sure the CD audio feature is enabled and the correct driver software is installed. Follow these steps:

    1. Click **Start** on the Windows® taskbar, click **Control Panel**, **Performance and Maintenance**, and **System**. The **System Properties** window appears.

    2. Select the **Hardware** tab, and click **Device Manager** in the **Device Manager** box. A window with a listing of the computer's hardware devices appears.

    ✍ If a "X" or an exclamation point appear on the listed device, you may need to enable the device or reinstall the drivers.

    3. Double-click the optical drive to open the submenu.

    4. Double-click the listed drive name, and select the **Properties** tab.

    5. Click to select the **Enable digital CD audio for this CD-ROM device** check box, if it is not selected.

    ✍ You can confirm the driver software by selecting the **Driver** tab and clicking **Driver Details**.

    6. Click **OK** to close the window.

- Make sure an adhesive label was not attached to the CD or DVD. Adhesive labels can come off while the disc is in the optical drive and damage the drive or cause it to malfunction.
- If a region code warning appears, the disc may be incompatible with the optical drive. Check the DVD package to make sure the region code is compatible with the optical drive.
- If you notice condensation on the computer, do not use the computer for at least one hour. Condensation can cause the computer to malfunction.

**Why did the computer screen (LCD) go blank?**

- Your computer screen may go blank if the computer has lost power or has entered a power saving mode (Standby or Hibernate). If the computer is in LCD (Video) Standby mode, press any key to activate the computer screen. See Using power saving modes for more information.
- Make sure the computer is plugged into a power source and is on. The power indicator on the computer will be on if the computer is on.
- If your computer is using battery power, make sure the battery is inserted properly and is charged. See Using the Battery for more information.
- If the display mode is set to external display, use the **Fn+F7** key combination. See Selecting a display for more information.

**How do I adjust the image on the TV screen?**

Use the controls on your TV to adjust the image. See the help guide that accompanied your TV for more information.

**Why can't I view the entire DVD picture on a TV screen?**

The video resolution on the computer may not be properly set for the TV screen. Change the video resolution to a smaller size.

✍ If you are using the A/V Out jack, plug the audio-video (AV) cable into the computer before you start the computer.

**To change the video resolution, follow these instructions:**

1. Right-click the desktop, and select **Properties** from the shortcut menu. The **Display Properties** dialog box appears.
2. Select the **Settings** tab.
3. Move the screen resolution slider to the left to reduce the size and to the right to increase the size of the video

resolution.

See Selecting a display for more information.

**How do I switch the computer screen (LCD) from LCD to TV?**

Press the **Fn+F7** keys to view the image on either the computer screen (LCD) or the TV. See Selecting a display for more information.

**The Fn+F7 key combination will not work once a DVD is inserted into the optical drive. Switching the display while a DVD is playing may cause the computer to malfunction, and you may need to restart the DVD software.**

**Is the CD-RW reading speed slower than the CD-ROM or CD-R reading speed?**

Generally the CD-RW reading speed is slower than the CD-ROM and the CD-R reading speeds, although reading speeds vary depending on the format you are using.

# Printer Connections

- Printing With Your Computer

## Printing With Your Computer

Your computer is compatible with many popular printers. However, to ensure the best performance, printers must be compatible with the Microsoft® Windows® operating system installed on your computer.

- Connecting a printer
- Disconnecting a printer
- Frequently asked questions

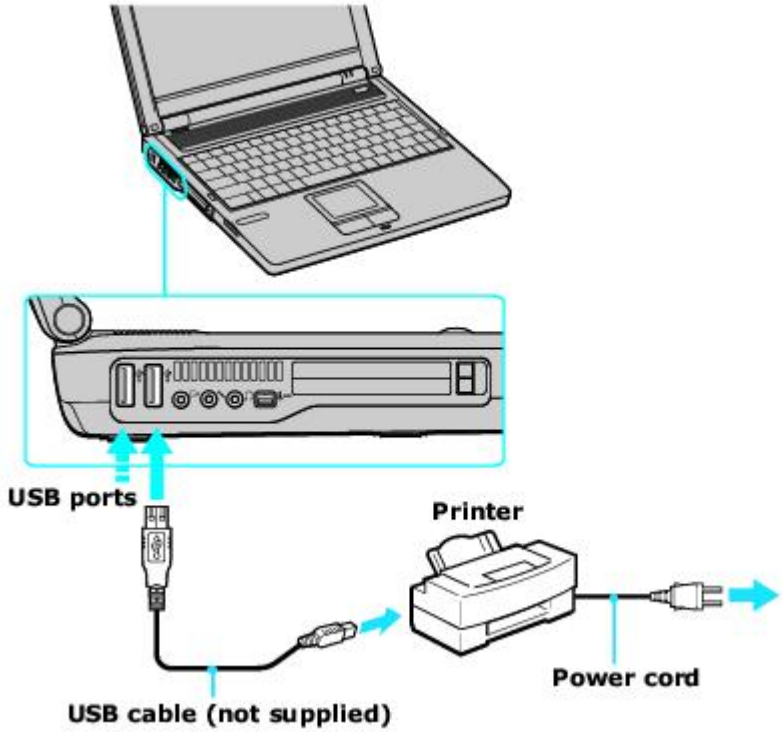
## Connecting a printer

You can connect a universal serial bus (USB) printer or, depending on the model, a parallel port printer to your computer. The New Hardware Wizard enables you to easily install the printer software, but some printers require separate driver software installation. See the instructions that accompanied your printer for more information.

### To connect a USB printer

1. Plug the USB cable into the USB port on your computer. See "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start.
2. Plug the other end of the USB cable into the USB port on the printer. If the **New Hardware Wizard** appears, follow the on-screen instructions to finish setting up the printer.

***Connecting a USB Printer***

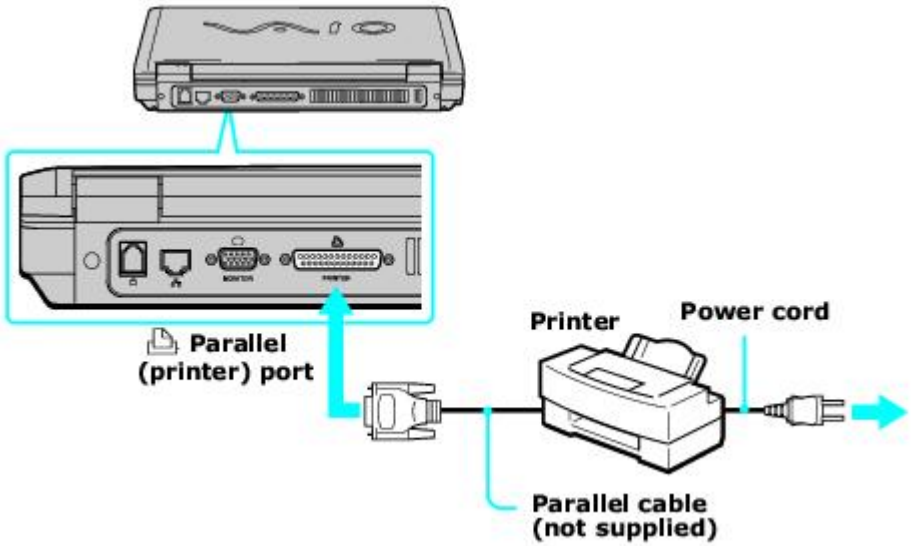



See the guide that accompanied the printer for more information on its installation and use.

### To connect a parallel printer

1. Plug the printer cable into the Printer port on your computer. See "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start.
2. Plug the other end of the printer cable into the port on the printer. If the **New Hardware Wizard** appears, follow the on-screen instructions.

***Connecting a Parallel Port Printer***




3. Restart your computer by clicking **Start**, **Turn Off Computer**, and **Restart**.

4. Make sure the computer recognizes the printer. Follow these steps:

   - Click **Start**, **Control Panel**, **Printers and Other Hardware**, and then **Printers and Faxes**.
     If the computer recognizes the printer, it will be listed in the **Printers and Other Hardware** window.
     If the computer does not recognize the printer, you may need to install the printer driver software.

✍ See the guide that accompanied the printer for more information on its installation and use.

## Disconnecting a printer

You can disconnect the printer cable when the computer is on or off. Disconnecting a printer when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

**To disconnect a printer**

- Unplug the printer cable from the computer.

## Frequently asked questions

**Why can't I print a document?**

- Make sure the printer is on, and the printer cable is securely connected to the ports on your printer and computer. See Connecting a printer for more information.
- Make sure the printer is compatible with the Microsoft® Windows® operating system installed on your computer.
- You may need to install the printer driver software before you use the printer. See the guide that accompanied the printer for more information.
- If the printer is not functioning after the computer resumes from a power saving mode (Standby or Hibernate), then restart the computer.
- You may need to change the default printer port setting, although this setting is generally correct for most printers.

1. Click **Start**, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **System**. The **System Properties** dialog box appears.
3. Select the **Hardware** tab, and click **Device Manager**. The **Device Manager** window appears.
4. Double-click **Ports (COM&LPT)**, and double-click **ECP Printer Port (LPT1)**.
5. Select the **Port Settings** tab, and select a different **LPT Port Number**.

- Using the Touch Pad
- Using Memory Stick Media
- Changing the Window Design of Sony Programs

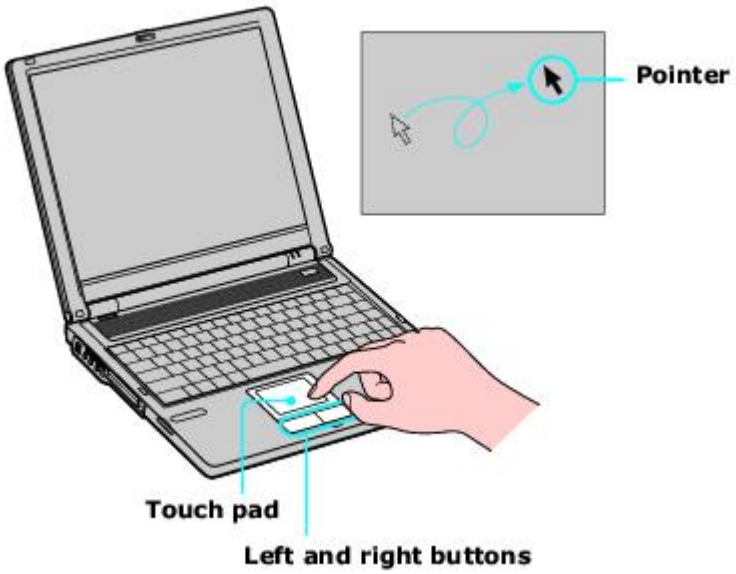
## Using the Touch Pad

A pointing device called a touch pad is located in front of the keyboard. You can point to, select, drag, and scroll objects on the screen using the built-in touch pad.

- Describing the touch pad
- Customizing the touch pad
- Frequently asked questions

## Describing the touch pad

### *Locating the Touch Pad*




| Touch Pad Action | Description |
|---|---|
| Sliding one finger | Equivalent to using a mouse to place the pointer on an item. |
| Tapping once | Equivalent to pressing the left button once. |
| Tapping twice | Equivalent to pressing the left button twice. |
| Sliding one finger while pressing the left button | Equivalent to using the mouse to drag an item. |
| Moving your finger along the right edge of the touch pad | Equivalent to scrolling vertically. (The scroll function is available only with programs that support a touch pad scroll feature.) |
| Moving your finger along the bottom to scroll horizontally | Equivalent to scrolling horizontally. (The scroll function is available only with programs that support a touch pad scroll feature.) |

## Customizing the touch pad

Open the Mouse Properties dialog box to set your touch pad and mouse preferences, such as changing pointers, enabling or disabling the tapping feature, clicking both buttons simultaneously, and adjusting the touch pad speed.

### To customize the touch pad and mouse

- Right-click the **Touch Pad** icon on the Windows® taskbar, and click **Mouse Properties** from the shortcut menu. The **Mouse Properties** dialog box appears.

### To enable the touch pad

1. Press the **Windows** key . The **Start** menu appears.
2. Press **C** to select **Control Panel**.
3. Press the **Tab** key to select **Performance and Maintenance**, and press **Enter**.
4. Press the **Tab** key to select **System**, and press **Enter**. The **System Properties** dialog box appears with the General tab selected.
5. Press the **Right Arrow** key to select the **Hardware** tab.
6. Press the **Tab** key to select the **Device Manager** button, and then press **Enter**. A window with a listing of the computer's hardware devices appears.
7. Press the **Tab** key once to select the first item in the list of hardware devices, and press the **Down Arrow** key to select **Mice and other pointing devices**, and then press **Enter**.
8. Press **Enter** to select the **Enable Device** button. The **Device Problems Troubleshooting Wizard** window appears.
9. Press **Enter** to select the **Next** button, and then press **Enter** again to select the **Finish** button.
10. Press the **Tab** key to select the **Close** button, and then press **Enter**.
11. Press the **Windows** key then press **U**. When the **Turn off computer** window appears, press **R**. The computer restarts and updates the touch pad settings.

### To disable the touch pad

1. Click **Start** on the Windows® taskbar, and then click **Control Panel**, **Performance and Maintenance** and **System**. The **System Properties** dialog box appears.
2. Select the **Hardware** tab, and in the **Device Manager** box, click **Device Manager**. A window with a listing of the computer's hardware devices appears.
3. Double-click **Mice and other pointing devices** to open the submenu.
4. Right-click **Alps Pointing-device,** and select **Disable**.
5. When a warning window appears asking you if you want to disable the device, click **Yes**.
6. Click **Yes** again on the **System Settings Change** window to restart your computer.

## Frequently asked questions

### What do I do if the touch pad does not work?

- Try restarting your computer. Follow these steps:
  1. Press the **Windows** key .
  2. Press **U**. The **Turn off computer** window opens.
  3. Press **R** to restart the computer.
- If the computer does not restart,
  1. Press **Ctrl**+**Alt**+**Delete** simultaneously. The **Windows Task Manager** window appears.
  2. Press and release **Alt** to highlight the menu bar, and press the **Right Arrow** key to select **Shut Down**.
  3. Press **Enter**.
  4. Press **R** to restart the computer.
- If you still cannot restart your computer, press and hold the power button to turn off the computer.
- If the pointer does not move while playing a disc, press **Ctrl**+**Alt**+**Delete** simultaneously to stop playback and restart the computer.
- If you are still experiencing problems, make sure another mouse is not installed.
- You may have disabled the touch pad without connecting a mouse to the computer. See To enable the touch pad.

### How do I change the left and right button assignments?

If your computer is interpreting a single-click as a double-click, you may want to change the button assignments. Follow these steps:

1. Click **Start** on the Windows® taskbar and click **Control Panel,** and then click **Printers and Other Hardware** and **Mouse.** The **Mouse Properties** dialog box appears with the **Buttons** tab selected.
2. Select your preferences in the **Button Selection** box, and then click **Apply** to install your settings.

   You may need to use the **Tab** key and the **Up Arrow** and **Down Arrow** keys to make your selections.
3. Click **OK** to close the window.

# Using Memory Stick Media

This compact, portable, and versatile recording medium has a data capacity exceeding that of a floppy disk. The medium is specially designed for exchanging and sharing digital data with compatible products. Because it is removable, the media can be used for external data storage.


- Selecting Memory Stick media
- Inserting Memory Stick media
- Viewing the contents
- Write-protecting Memory Stick media
- Formatting Memory Stick media
- Removing Memory Stick media
- Frequently asked questions

## Selecting Memory Stick media

Memory Stick® media are a compact, portable, and versatile data storage media designed for exchanging and sharing digital data with compatible devices. The following types of Memory Stick media are available, but compatibility with your computer can vary.

- Memory Stick PRO media — Provides MagicGate copyright protection and high-speed transfer features when used with compatible Memory Stick PRO devices. VAIO® computers support Memory Stick PRO media for data storage purposes only. Currently, high-speed data transfer and the MagicGate technology features, such as authentication and encryption, are not available. You can store different data formats on a single Memory Stick media.

- Memory Stick media — Provides data storage only. The Memory Stick media does not provide MagicGate technology or high-speed data transfer. You can store different data formats on a single Memory Stick media.

Currently, Sony® SonicStage and OpenMG software are not compatible with the new Memory Stick PRO media. Sony suggests using only MG Memory Stick media to store and transfer any data created with SonicStage or OpenMG software.

Visit the Sony Computing Support Web site at http://www.sony.com/pcsupport regularly for the latest information on the new memory Stick PRO media.

Memory Stick media do not support video file playback directly from the media. Copy the video file to your hard disk drive and then play back the file.

## Inserting Memory Stick media

Before using Memory Stick media, back up important data. The media slot accommodates only one Memory Stick media at a time.

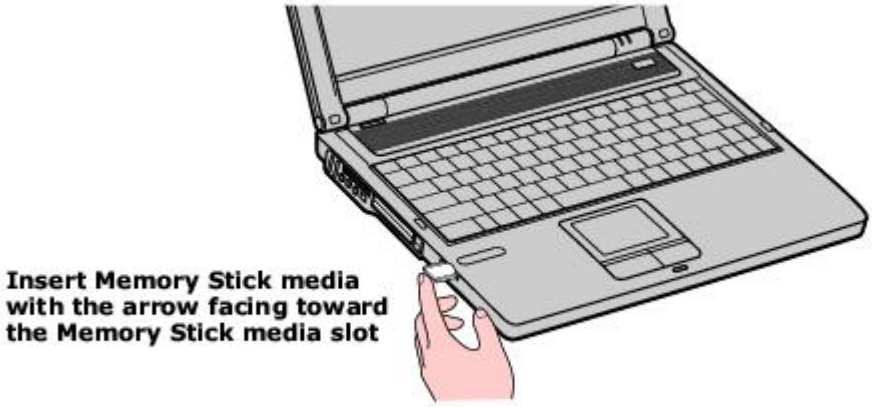
### To insert Memory Stick media

1. Insert the Memory Stick media with the arrow facing up and toward the Memory Stick media slot.

   Inserting the media in the wrong direction may damage the connector pins.

2. Carefully slide the Memory Stick media into the slot until it clicks in place. The Memory Stick media indicator briefly blinks.

***Inserting Memory Stick Media***



## Viewing the contents

Depending on the model you purchased, the Sony Memory Stick window may appear when you insert a Memory Stick media. From this window, you can choose to view, print, copy or organize your Memory Stick images or data. If the Sony Memory Stick window does not appear when you insert your Memory Stick media, then follow these steps:

**To view the contents**

1. From the **Start** menu, click **My Computer**. The **My Computer** window appears.

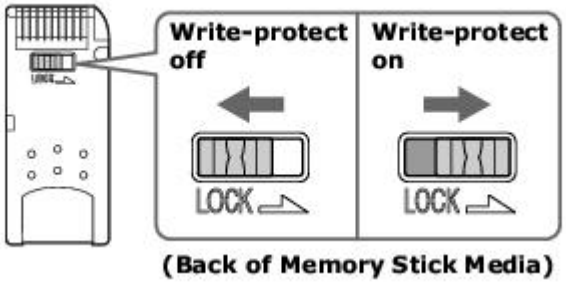
2. Click **Sony MemoryStick**. The **Sony MemoryStick** window appears, displaying the contents stored on the Memory Stick media.

## Write-protecting Memory Stick media

Memory Stick® media is designed with a write-protect tab to protect data from accidental erasure or overwriting. Move the tab to the right or left to set or release write-protection. When the write-protect tab of the Memory Stick media is set to LOCK, data cannot be recorded or erased.

| | |
|---|---|
| Write-protect off | Data can be saved on the Memory Stick media. |
| Write-protect on | Data can be read from but not saved on the Memory Stick media. |

### *Using the Write-Protect Tab*



## Formatting Memory Stick media

Memory Stick® media is formatted for immediate use when you purchase it. If you need to reformat Memory Stick media, use the Memory Stick Formatter that is provided with the media. For more information about using Memory Stick Formatter, refer to Formatter Help.

**Formatting Memory Stick media erases all data, including music data, previously saved to it. Before you reformat Memory Stick media, confirm that the media does not contain files you want to keep. Back up important data before formatting the media.**

### To format Memory Stick media

1. Insert the Memory Stick media into the Memory Stick media slot. See To insert Memory Stick media for more information.
2. From the **Start** menu, click **My Computer**. The **My Computer** window appears.
3. Right-click **Sony MemoryStick**, and click **Format** from the menu. The **Format MemoryStick** dialog box appears.
4. Select **Quick Format** in the **Format options** box, and then click **Start**.

## Removing Memory Stick media

If the media is removed prematurely, a blue screen with a message may appear prompting you to continue or exit. Reinsert the media into the slot and press **Enter** to continue. This enables the media to finish reading or writing data.

### To remove Memory Stick media

1. Wait a minimum of 10 seconds after the Memory Stick media finishes reading or writing data before removing the media.
2. Make sure the access light is off.
3. Push the Memory Stick media in toward the computer.
4. When the Memory Stick media ejects, pull it out.

Be careful when removing the Memory Stick media, as it may eject completely from the slot.

## Frequently asked questions

### Why can't I open my image files?

You may need to reformat your Memory Stick media.

**Formatting Memory Stick media erases all data, including music data, previously saved to it. Before you reformat Memory Stick media, back up important data and confirm that the media does not contain files you want to keep.**

1. Copy the data from the Memory Stick media onto your computer's hard disk to save data or images.
2. Format the Memory Stick media using Memory Stick Formatter software preinstalled on your computer. For instructions about formatting a Memory Stick media, see Formatting Memory Stick media.

### Why can't I save music files onto my Memory Stick media?

- Only MagicGate Memory Stick media can be used with copyright protected data, such as music.
- Copyright protected music cannot be checked out to any Memory Stick media other than MG Memory Stick media.
- Using recorded music requires permission of the copyright holders.
- Sony is not responsible for music files that cannot be recorded from a CD or downloaded from other sources.

### Can I copy images from a digital video camera using Memory Stick media?

Yes, and you can view video clips that you have recorded with Memory Stick media-compatible video camera recorders.

### How do I prevent damage to the Memory Stick media?

- Do not use the media in locations that are subject to static electricity or electrical noise.
- Do not touch the media connector with your finger or metallic objects.
- Do not attach labels other than the supplied label to a media.
- Do not bend, drop, or apply strong shock to the media.
- Do not disassemble or modify the media.
- Do not allow the media to get wet.

### How do I extend the life of the Memory Stick media?

- Use the supplied storage case. See the instructions that came with your media for more information on its use.
- Do not use or store the media in a location that is subject to:
  - Extremely high temperatures, such as in a car parked in the sun
  - Direct sunlight
  - High humidity or places with corrosive substances

## Changing the Window Design of Sony Programs

This feature changes the appearance, such as color, of certain Sony programs.

**To change the window design**

1. Click **Start**, and then **Control Panel**.
2. In the left panel, click **Switch to Classic View**.
3. Double-click **UI Design Selector**.
4. Click **<<** or **>>** to view the designs.
5. Click **Apply** to select a design that appears in the center window. The **UI Design Selector** window design changes. The window design of certain Sony programs will match the **UI Design Selector** window.
6. Click **OK**.

# Mice and Keyboards

- Using the Keyboard
- Connecting Mice and Keyboards

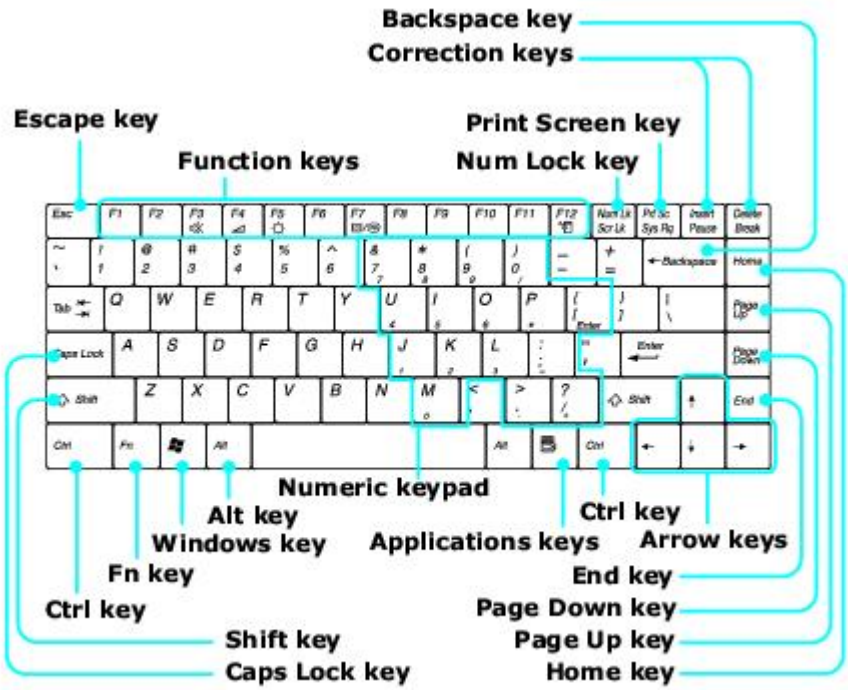
## Using the Keyboard

Your keyboard is very similar to a typewriter's, but your computer keyboard has additional keys that perform specific computer-related tasks.

- Key locations and descriptions
- Combinations and functions with the Windows key
- Indicator lights
- Combinations and functions with the Fn key

## Key locations and descriptions

### *Keyboard*




**Key** **Description**

Numeric keypad Contains the keys found on a typical calculator. Use the numeric keypad area to type numbers or to perform mathematical calculations, such as addition and subtraction. Numbers appear on the front beveled edge of the numeric keys. Press the Num Lock key to activate the numeric keypad. (When you do so, the Num Lock indicator light turns on.) Press the Num Lock key again to deactivate the numeric keypad.

Arrow keys The Left, Right, Up, and Down arrow keys move the pointer on the screen. They also function as the Home, End, Page Up, and Page Down keys, respectively, when the Fn key is pressed.

Correction keys The Insert, Back Space, and Delete keys enable you to make corrections to keystrokes.

Function keys The 12 function keys along the top of the keyboard are used to perform designated tasks. For example, in many programs, F1 is the Help key. The task associated with each function key may vary from one program to the next.

Escape key The Esc (Escape) key is used to cancel commands.

Print Screen key The Print Screen key takes an electronic snapshot of the screen and moves it to the Clipboard. You can then paste the screen shot into a document and print it.

Operator keys
(Ctrl, Alt, Shift keys) Several keys are always used with at least one other key: Ctrl, Alt, and Shift. When held down with another key, the Ctrl (Control) and Alt (Alternate) keys offer another way to give commands. For example, in many programs, instead of choosing the Save command from a menu, you can hold down **Ctrl** and press **S** (referred to as **Ctrl+S** ). The Shift key operates the same way as on a typewriter; it is used to produce capital letters or special symbols, such as @ and $.

Windows key

The key with the Microsoft® Windows® operating system logo displays the Start menu; it is the equivalent of clicking Start on the taskbar. See Combinations and functions with the Windows key for more information.

Fn key The Fn key is used in combination with other keys to issue commands. See Combinations and functions with the Fn key for more information.

Applications key

The Applications key displays a shortcut menu of context-sensitive choices. Pressing this key is the equivalent of clicking the right mouse button.

## Combinations and functions with the Windows key

| Combination | Function |
| --- | --- |
| +F1 | Displays the VAIO Help and Support Center window. |
| +Tab | Switches the selected button on the taskbar. |
| +D | Displays the desktop. |
| +E | Displays the My Computer window. |
| +F | Displays the Search Results window, where you can find a file or folder. This is the equivalent of selecting Search from the Start menu. |
| +Ctrl+F | Displays the Search Results - Computers window, where you can locate other computers. This is the equivalent of selecting Search, and then Computer from the Start menu. |
| +M | Minimizes all displayed windows. |
| Shift+ +M | Returns all minimized windows to their previous size. |
| +R | Displays the Run window. This is the equivalent of selecting Run from the Start menu. |
| Fn+ +Insert | Displays the System Properties window. This is the equivalent of selecting Control Panel, and then System from the Start menu. |

## Indicator lights

**Indicator Function**

Power

Turns on when the power to the computer is on, blinks in Standby mode, and turns off when the computer is in Hibernate mode or off.

Battery

Turns on when the computer is using battery power, blinks when the battery is running out of power, double-blinks when the battery is charging.

Hard Disk

Turns on when data is read from or written to the hard disk. Do not enter Standby mode or turn off the computer when this indicator is on.

Num Lock

Press this key to activate the numeric keypad. Press it a second time to deactivate the numeric keypad. The numeric keypad is not active when the indicator is off.

Caps Lock

Press this key to type letters in uppercase. Letters appear in lowercase if you press Shift while the indicator is on. Press the key a second time to turn off the indicator. Normal typing resumes when the Caps Lock indicator is off.

Scroll Lock

Press this key to change how you scroll the display. Normal scrolling resumes when the Scroll Lock indicator is off. The Scroll Lock key functions differently depending on the program you are using and does not work with all programs.

## Combinations and functions with the Fn key

**Combinations/**

| **Feature** | **Function** |
| --- | --- |
| Fn+F3 | Toggles the built-in speakers off and on. |
| Fn+F4 | Adjusts the built-in speaker volume. |

To increase volume, press the **Fn**+**F4** keys, plus the **Up Arrow** key ↑ or the **Right Arrow** → key.

To decrease volume, press the **Fn**+**F4** keys, plus the **Down Arrow** ↓ key or the **Left Arrow** ← key.

Fn+F5 Adjusts the brightness of the computer screen (LCD).

To increase the brightness, press the **Fn**+**F5** keys, plus the **Up Arrow** ← key or the **Right Arrow** → key.

To decrease the brightness, press the **Fn+F5** keys, plus the **Down Arrow** ↓ key or the **Left Arrow** ← key.

Fn+F7 Toggles the display between the computer screen (LCD), a connected TV, and a connected external display, such as a monitor or projector.

Select one display at a time when playing a DVD. Connect the cable before you turn on the computer; otherwise, **Fn**+**F7** will not work. You cannot use the Fn+F7 function to switch between the LCD and TV once a DVD is inserted into the optical drive.

| | |
| --- | --- |
| Fn+F12 | Puts the system into Hibernate mode, a power management state. To return the system to normal operating mode, press the power button. Hibernate mode consumes the lowest level of power. |

## Connecting Mice and Keyboards

Your computer is compatible with many popular mice and keyboards. To function properly, the device you connect must be compatible with the Microsoft® Windows® operating system installed on your computer. For information about your computer's built-in keyboard and key functions, see Key locations and descriptions.

- Connecting a mouse or keyboard
- Disconnecting a mouse or keyboard
- Frequently asked questions

## Connecting a mouse or keyboard

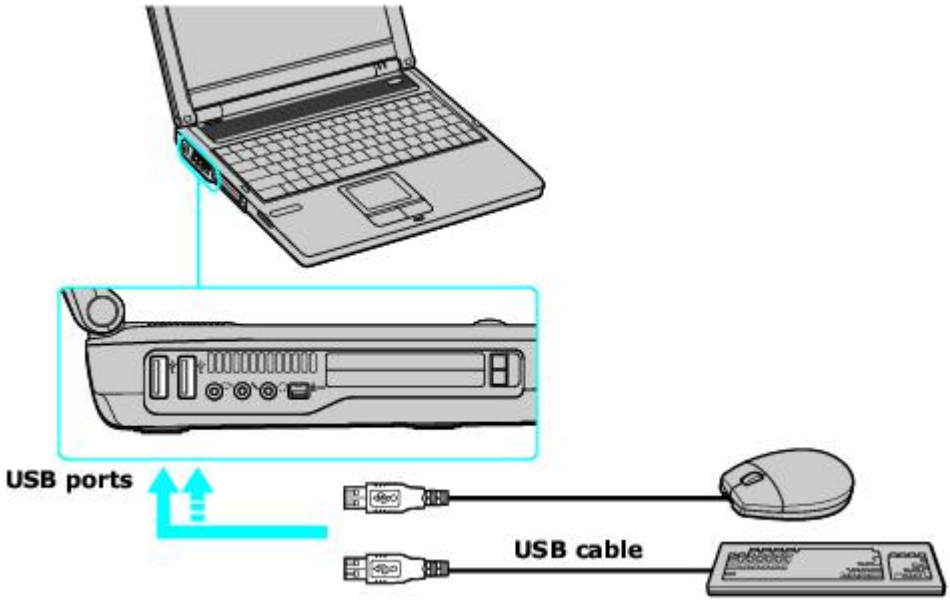
Your computer can be on or off when connecting a universal serial bus (USB) mouse or keyboard. If you connect the mouse or keyboard when the computer is on, you may need to restart the computer for it to recognize the device. See Frequently asked questions for more information.

### To connect a USB mouse or keyboard to your computer

1. Plug the USB cable into the USB port . See "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start. (One USB port supports one USB connection.)
2. If the **New Hardware Wizard** appears, follow the on-screen instructions to complete the installation process.

Although the New Hardware Wizard guides you through the software installation, some devices require separate driver software installation. See the instructions that accompanied your mouse or keyboard for more information

***Connecting a USB Mouse or Keyboard***



## Disconnecting a mouse or keyboard

You can disconnect a USB mouse or keyboard when the computer is on or off. Disconnecting the mouse or keyboard when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

### To disconnect a mouse or keyboard

- Unplug the USB cable from the USB port.

## Frequently asked questions

**What do I do if the computer doesn't recognize the mouse?**

- Make sure the mouse is securely plugged into the port. See Connecting a mouse or keyboard for more information.
- Restart the computer with the mouse connected to the computer.

**What do I do if the pointer doesn't move when I use the mouse?**

- Make sure another mouse is not installed.
- If you are playing a disc, press the **Ctrl**+**Alt**+**Delete** keys simultaneously to stop playback and restart the computer.
- If you still cannot use the pointer, restart the computer. You can restart the computer three different ways:
  - Press the **Windows** key , and press **U**. When the **Turn Off Computer** window appears, press **R**.
  - Press the **Ctrl**+**Alt**+**Delete** keys simultaneously. When the **Windows Task Manager** window appears, press the **Alt** key to highlight the menu bar, and press the **Right Arrow** key to select **Shut Down**. Press **Enter**, and then press **R**.
  - Press and hold the power button. When the computer turns off, press the power button again to restart the computer.

# Floppy Disk and PC Card Connections

- Using a Floppy Disk Drive
- Using PC Cards

## Using a Floppy Disk Drive

You can connect a floppy disk drive to your computer. The floppy disk drive enables you to read or write data to a floppy disk.

- Connecting a floppy disk drive
- Inserting and removing floppy disks
- Protecting floppy disks
- Disconnecting a floppy disk drive
- Storing a floppy disk drive
- Frequently asked questions

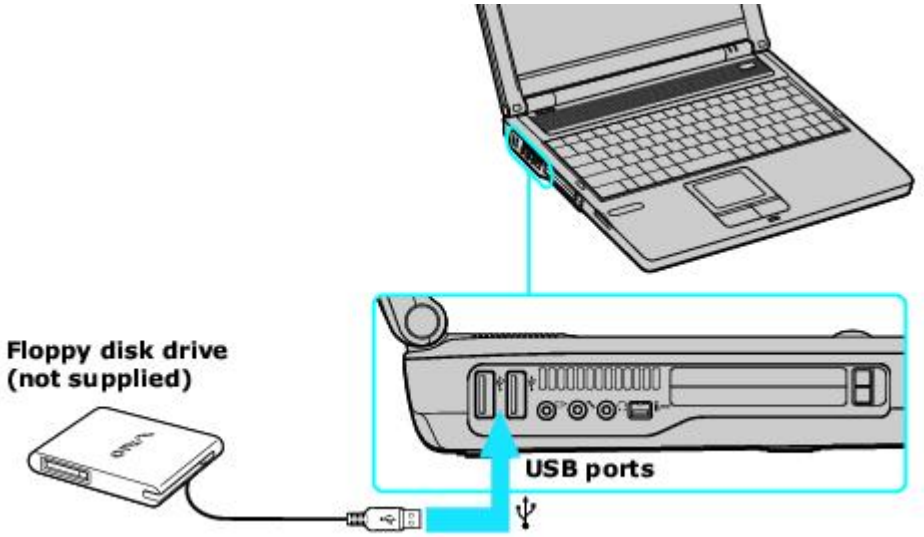
## Connecting a floppy disk drive

You can connect a floppy disk drive when your computer is on or off. Connecting the drive when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

### To connect a USB floppy disk drive

1. Close any active programs to prevent data loss.
2. Plug the USB cable (with the USB icon facing upward) into the USB port . The **Found New Hardware** pop-up message appears.

***Connecting a Floppy Disk Drive***



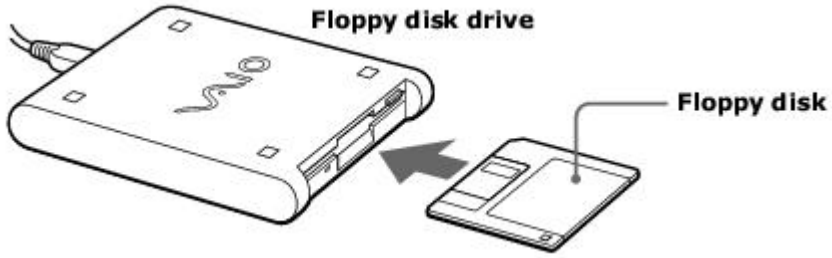
## Inserting and removing floppy disks

To write data to a disk, use one that is not write-protected or disable the write-protect feature. The floppy disk drive cannot write data to a disk if it is inserted into the drive improperly.

### To insert a floppy disk

1. Hold the floppy disk with the label facing up.
2. Push the floppy disk into the drive until it clicks into place.

***Inserting a Floppy Disk***



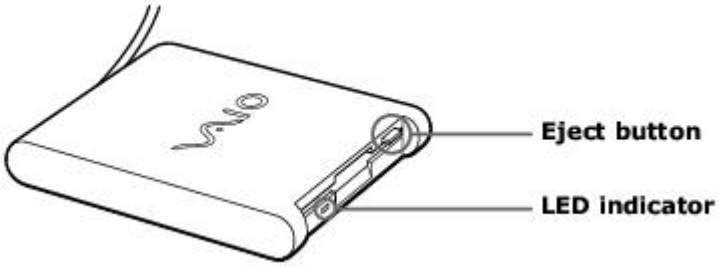

Do not open the shutter manually and touch the surface of the floppy disk.

### To remove a floppy disk

1. Close all programs that access the floppy disk.
2. Wait for the LED indicator on the floppy disk drive to turn off.
3. Push the Eject button, and remove the disk.

To avoid losing data, do not push the Eject button when the LED indicator is on.

***Removing a Floppy Disk***



## Protecting floppy disks

- Do not open the shutter manually or touch the surface of the floppy disk.
- Keep floppy disks away from magnets, direct sunlight, and heat sources.

## Disconnecting a floppy disk drive

You can disconnect a USB floppy disk drive when the computer is on or off. Disconnecting the drive when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

**To disconnect the drive while the computer is on**

1. Double-click the **Safely Remove Hardware** icon on the taskbar. The **Safely Remove Hardware** dialog box appears.
2. Click to select the floppy drive **in the Hardware devices window, if it is not already selected**.
3. Click **Stop**. The **Stop a Hardware device** window appears.
4. Make sure the floppy drive is selected, and click **OK.** A message appears, stating it is safe to remove the hardware device.

## Storing a floppy disk drive

Fold the floppy disk drive cable and connector into the side compartment on the floppy disk drive.

***Storing a Floppy Disk Drive***

## Frequently asked questions

### Why doesn't the Safely Remove Hardware icon appear on the taskbar when the drive is connected?

The computer does not recognize the floppy disk drive. First, make sure the USB cable is properly connected to the USB port. If you need to secure the connection, wait a few moments for the computer to recognize the drive. If the icon still does not appear, follow these steps:

1. Close all programs that were accessing the floppy disk drive.
2. Wait for the LED indicator on the floppy disk drive to turn off.
3. Push the Eject button, and remove the disk.
4. Reconnect the floppy disk drive by inserting the USB connector (with the USB icon facing upward) into the USB port .
5. Restart the computer by clicking **Start** on the Windows® taskbar, **Turn Off Computer**, and then **Restart**.

### Why is the drive unable to write data to a floppy disk?

Make sure the floppy disk is properly inserted in the drive. See Inserting and removing floppy disks for instructions on how to insert the disk properly.

If the disk is inserted properly and you are still unable to write data to it, the disk may be full or write-protected. You can either use a floppy disk that is not write-protected or disable the write-protect feature.

# Using PC Cards

Your computer includes one or more PC Card slots. A PC Card enables you to connect devices such as an optical drive, floppy disk drive, or Network Interface Card (NIC).

See your VAIO® Computer Specifications for the type of PC Card that is compatible with your computer. These slots are compatible with CardBus. If your computer has more than one PC Card slot, use the lower slot for Type III PC Cards. You do not need to turn off your computer to insert or remove a PC Card.

- Inserting PC Cards
- Removing PC Cards
- Frequently asked questions

## Inserting PC Cards

**To insert a PC Card**

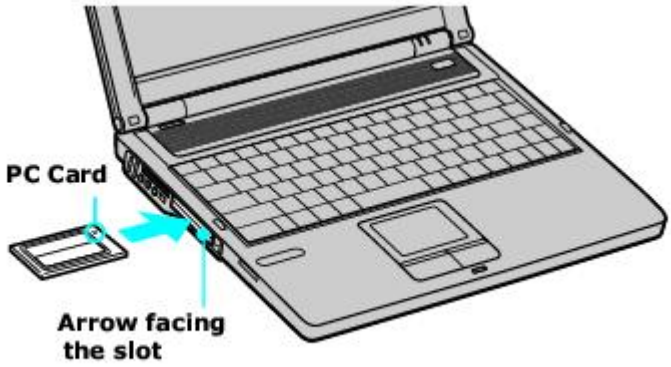
1. Make sure the front label of the PC Card is facing up.
2. Push the PC Card gently into the slot. The system automatically detects the PC Card.

**Do not force a PC Card into the slot; this may damage the connector pins.**

**When a PC Card is inserted, do not place your computer in a bag or case. Pressure or shock to a PC Card may damage your computer.**

**Touching the head of the PC Card will not damage the connector pins, but damage may occur if the head of the PC Card is sticking out of the PC Card slot while the computer is being transported.**

***Inserting a PC Card***



## Removing PC Cards

You can remove PC Cards while the computer is on or off. PC Cards draw power from the computer when they are inserted into the PC Card slot, whether or not you use the card.

If you are not using your PC Card and you are using a battery as a power source, remove the PC Card from the PC Card slot to conserve battery power.

**To remove a PC Card while your computer is on**

1. Double-click the **Safely Remove Hardware** icon on the taskbar. The **Safely Remove Hardware** dialog box appears.
2. Click to select the PC Card **in the Hardware devices window, if it is not already selected**.
3. Click **Stop**. The **Stop a Hardware device** window appears.
4. Make sure the PC Card is selected, and click **OK.** A message appears stating it is safe to remove the hardware device.
5. Push the Release button. The Release button pops out.
6. Push the Release button a second time. The PC Card pops out.
7. Gently pull the card out of the slot.

**To remove a PC Card while the computer is off**

1. Push the Release button once. The Release button pops out.
2. Push the Release button a second time. The PC Card pops out.
3. Gently pull the card out of the slot.

## Frequently asked questions

**Why doesn't my PC Card work?**

- Make sure the PC Card is inserted properly. See Inserting PC Cards for more information.
- Make sure the PC Card is compatible with the Microsoft® Windows® operating system installed on your computer.
- See the instructions that accompanied your PC Card. You may need to install driver software if you are not using a Sony PC Card.

**Why doesn't my computer recognize attached devices?**

For some PC Cards, if you alternate between normal power operation and the Standby or Hibernate modes while the card is inserted into the PC Card slot, the computer may not recognize the PC Card or the connected device. Restart your computer.

**Why can't I insert my PC Card?**

- Make sure you are inserting the card correctly. See Inserting PC Cards for more information.
- You may not be able to use some PC Cards or some functions of the PC Card with this computer. Check the guide that accompanied your PC Card for more information on its use.

**Why does an exclamation mark (!) appear on the Device Manager tab in the System Properties dialog box?**

- The exclamation mark indicates there is a problem with the specified device. Make sure all cable and power connections are secure.
- You may not be using the most recent driver software provided by the PC Card manufacturer. Make sure the necessary drivers are installed. You may need to remove the driver software, and reinstall it.

# Audio and Video Connections

- Using i.LINK Digital-Video Recorders
- Using Computer Monitors and Projectors
- Using Speakers
- Using Microphones

# Using i.LINK Digital-Video Recorders

You can connect a digital-video (DV) recorder, such as an i.LINK®[1] digital video camera recorder, to the i.LINK® S400 (IEEE 1394) port on your computer. The i.LINK digital-video camera recorder is an external device that enables you to record and view digital images.

- Connecting an i.LINK digital video recorder
- Disconnecting the i.LINK digital video recorder
- Using a digital video camera recorder
- Frequently asked questions

[1] i.LINK is a trademark of Sony used to designate that a product contains an IEEE 1394 connector. The i.LINK connection may vary, depending on the software application, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for more information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

## Connecting an i.LINK digital video recorder

You can connect an i.LINK digital video (DV) recorder when the computer is on or off. Connecting the DV recorder when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

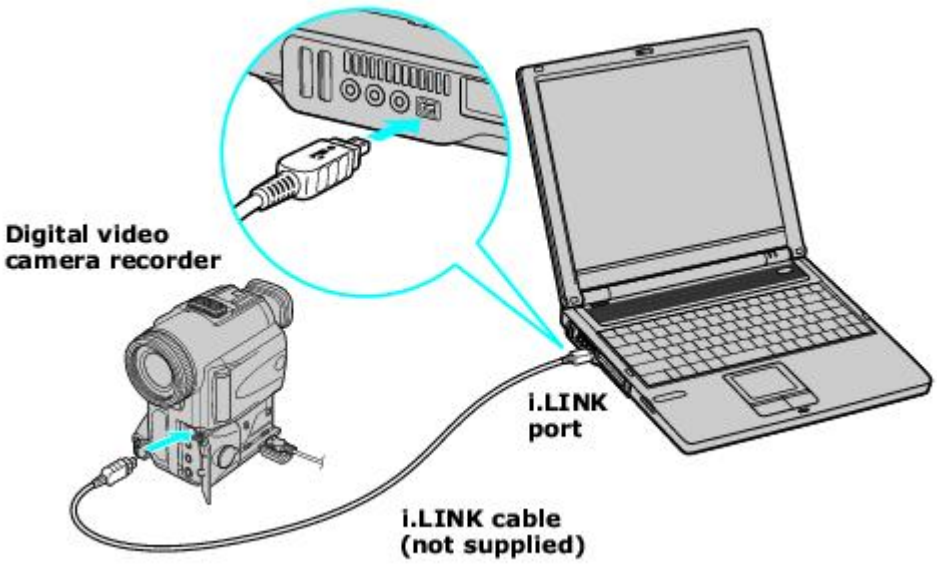
### Before you connect an i.LINK digital video recorder

- Do not connect more than one digital video camera recorder at a time. The preinstalled programs on your computer will not recognize multiple cameras.
- Do not connect an external device that requires power from the i.LINK port. The i.LINK port does not supply power to the external device.
- The i.LINK port supports transfer rates of up to 400 Mbps; however, the actual transfer rate is the lowest transfer rate of the external device.
- The i.LINK features available may vary depending on the programs you use. See the help guide that accompanied your program for more information.

### To connect an i.LINK digital video recorder

1. Turn on the digital video (DV) device and the computer.
2. Plug the i.LINK® cable into the i.LINK port on the DV device.
3. Plug the other end of the i.LINK cable into the i.LINK port on your computer. The **Found New Hardware** window appears on the lower right corner of your screen.

***Connecting an i.LINK Digital Video Camera Recorder***




See the guide that accompanied your digital video camera recorder for more information on its installation and use.

## Disconnecting the i.LINK digital video recorder

You can disconnect the digital video recorder while the computer is on or off. Simply unplug the i.LINK cable from the i.LINK port on the computer. Disconnecting the cable when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

## Using a digital video camera recorder

Your computer comes with preinstalled driver software that is compatible with most Sony digital video camera recorders. If you purchased a camera that comes with its own driver software, install these drivers before you use the camera.

### To view images

You can view images captured by your digital video camera recorder three different ways. Select one set of instructions from the following list:

- If your digital video camera recorder is compatible with the preinstalled programs, the **Digital Video Device** window appears when you connect the camera to the computer. Select the program you want to use in this window, and click **OK**.
- Click **Start**, and click **All Programs**. Select a program in which to view your images.
- Click **Start**, and click **Experience VAIO**. Click **Video**, and select a program in which to view your images.

## Frequently asked questions

### Why can't I use the DV recorder?

You may not be able to use the DV recorder, and the message **DV equipment seems to be disconnected or turned off** may appear because the i.LINK[1] cable is not securely plugged into the ports on the computer or camera. Unplug the connectors, and plug them in again. See Connecting an i.LINK digital video recorder for more information.

[1] i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. Refer to the documentation that came with your compatible i.LINK device for information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

## Using Computer Monitors and Projectors

You can connect an external display (such as a computer monitor or a projector) to your computer.

- Connecting a computer monitor
- Connecting a multimedia device
- Selecting a display
- Disconnecting a computer monitor or projector

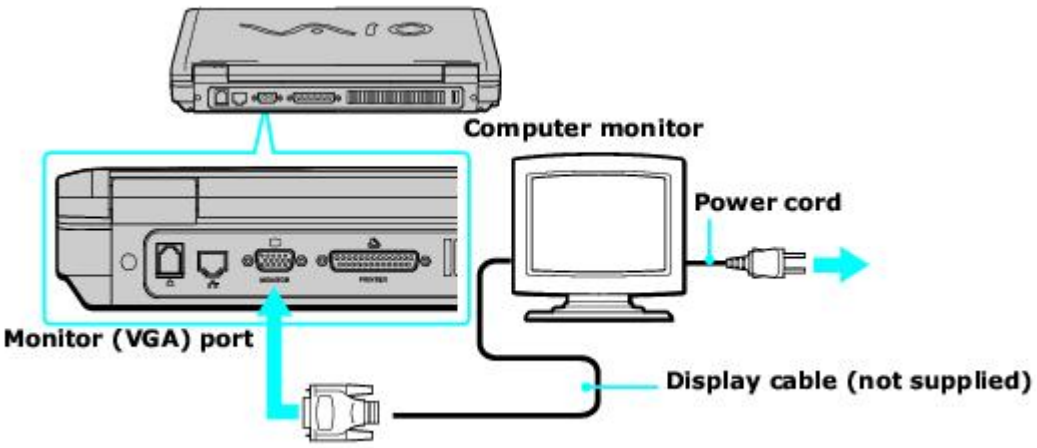
## Connecting a computer monitor

Your computer can display images to the computer screen (LCD), to an external computer monitor, or to both the LCD and external monitor while your computer is on.

### To connect a computer monitor

1. Make sure the computer monitor is plugged into an AC outlet.
2. Plug the display cable into the Monitor (VGA) port on the computer.
3. If it is not already on, turn on the computer monitor.
4. Press the **Fn**+**F7** keys to toggle the display between your computer, the monitor, or both the computer and monitor. See Selecting a display for more information.

***Connecting a Computer Monitor***



## Connecting a multimedia device

You can connect a multimedia device, such as a multimedia computer monitor or projector, to your computer. Connecting a multimedia device enables you to display images on your computer screen (LCD), the multimedia device, or both.

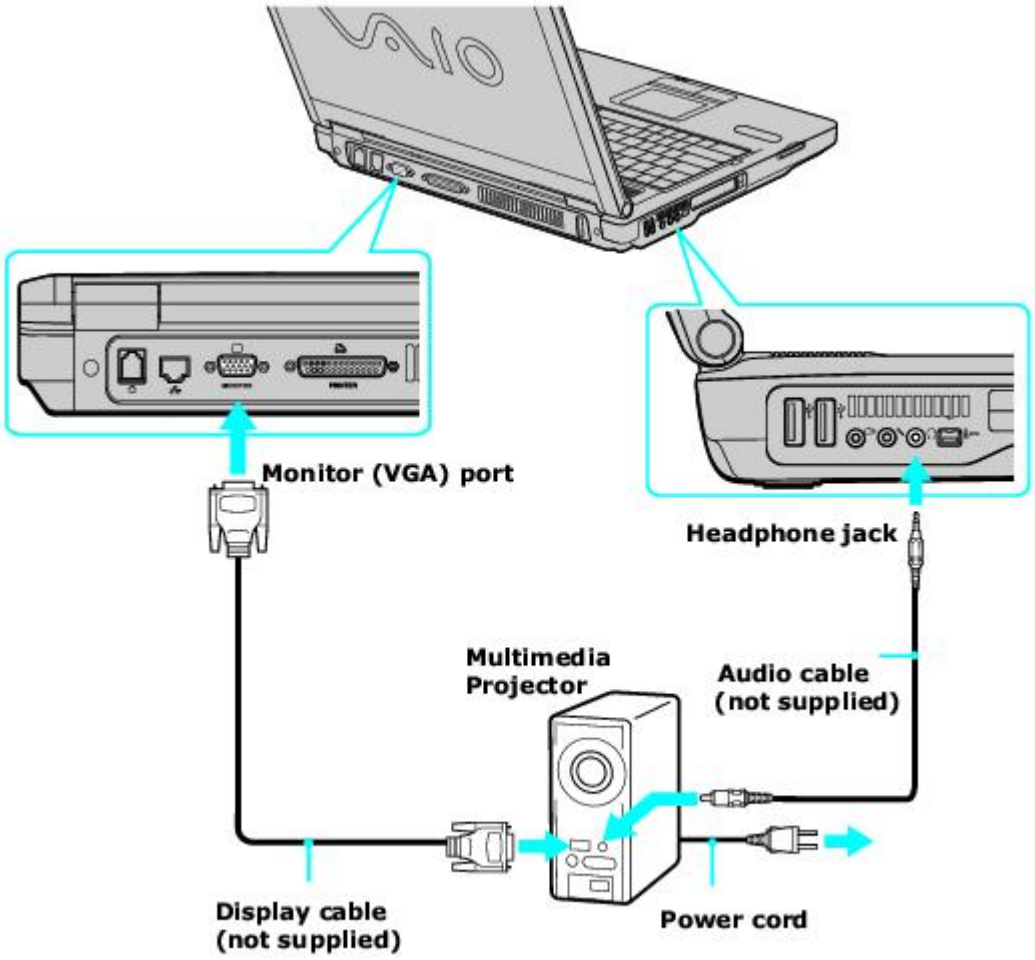
For information on connecting a TV to your computer, see Playing DVDs.

### To connect a multimedia computer monitor or projector

1. Plug the device into an AC outlet.
2. Plug the video cable into the Monitor (VGA) port on your computer. If you are using a multimedia computer monitor, which has built-in speakers and a microphone, you and also plug the audio cable into the Headphone jack on your computer to hear sound.

   To locate the Monitor port and Headphone jack, see "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start.

***Connecting a Projector***




3. Turn on the device (if it is not already on), and then turn on your computer.
4. Press the **Fn**+**F7** key combination to toggle the display between your computer, the monitor, or both. See Selecting a display for more information.

See the guide that accompanied your projector for more information on its installation and use.

## Selecting a display

When you connect an external display (projector, computer monitor, or TV) to your computer, you can switch the display between the computer screen (LCD), the external display, or both, using shortcut keys or the Display Properties settings.

### To switch displays using the Fn+F7 shortcut keys

1. Make sure the display cable (not supplied) is connected to the external display and the computer.
2. If the computer is not on, then press the power button.
   If the computer is on, restart it by clicking **Start**, **Turn Off Computer**, and **Restart**.
3. Press the **Fn+F7** keys. A small window appears near the taskbar. Press either the **Left Arrow** ← key or **Right Arrow** → key to select a display option, or press **FN+F7** again, until you get the desired display option.

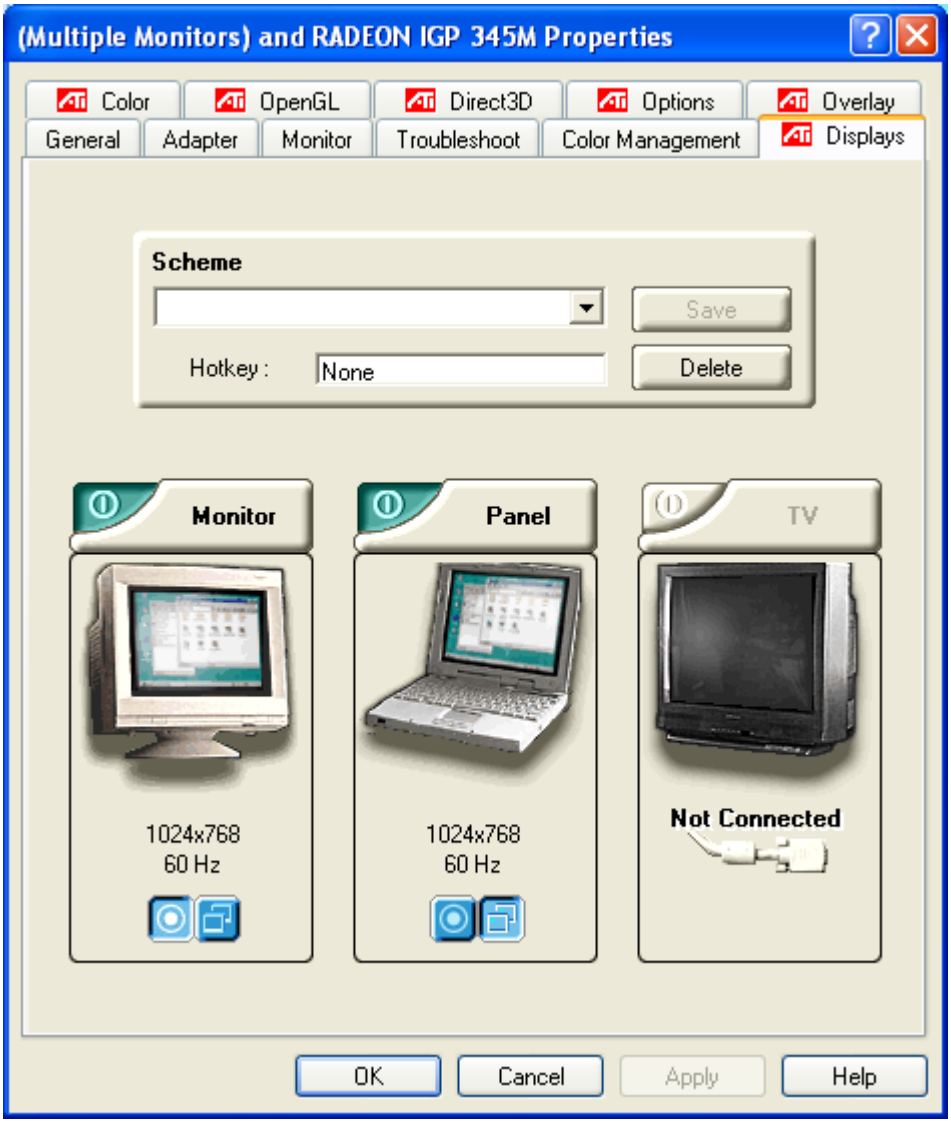
✍ Select one display at a time before playing a DVD. You cannot use the Fn+F7 function to switch between the LCD and TV once a DVD is inserted into the optical drive.

### To switch the display using the Display Properties settings

✍ Depending on the external display, you may need to connect the display to the computer before you turn the computer on.

1. Click **Start** on the Windows® taskbar, and then click **Control Panel** and **Appearance and Themes**.
2. Click **Display**. The **Display Properties** window appears.
3. Click the **Settings** tab, and then click the **Advanced** button.
4. Click to the **Displays** tab. The Sony Notebook LCD and RADEON IGP Properties window appears.

***(Multiple Monitors) and RADEON IGP Properties***




5. Click the **Monitor**, **Panel**, or **TV** button on the upper left corner of the display.

6. Click **Apply**.

7. Click **OK**. For more information, click **Help**.

If you cannot see your movie or DVD on the external display, change the monitor or TV setting by clicking on the **Primary** icon on the display panel of your choice.

You may not be able to display the computer screen (LCD) and an external display or projector at the same time, depending on the types of computer displays and projectors you are using.

## Disconnecting a computer monitor or projector

You can disconnect the external computer monitor or projector by unplugging the display or Monitor (VGA) cable from your computer's port. Disconnecting the external display when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

## Using Speakers

Your computer comes with built-in stereo speakers. If you wish to enhance the sound quality of your computer, you can purchase and connect external speakers. If you want to purchase speakers, make sure the speakers are designed for computer use. You can shop Sony online at http://www.sonystyle.com/vaio or contact your local retailer.

- Connecting speakers
- Disconnecting speakers
- Adjusting the volume
- Enabling the audio feature
- Frequently asked questions

## Connecting speakers

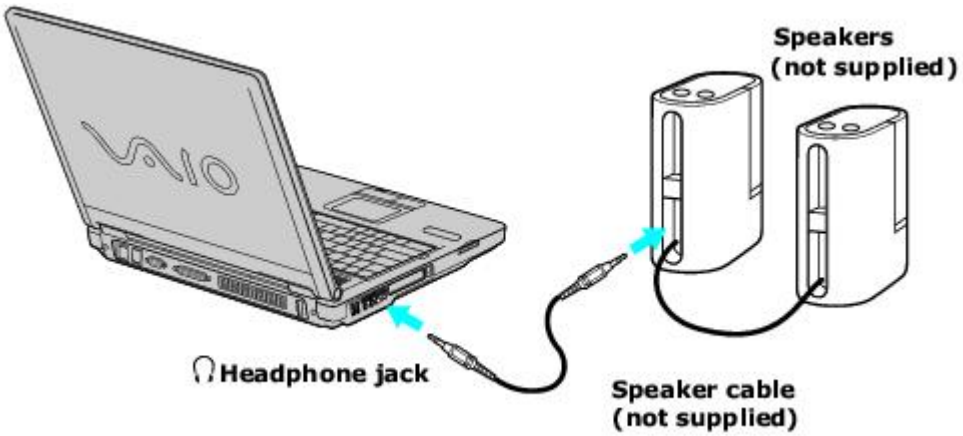
You can connect speakers to your computer to enhance the sound quality of your computer.

**Do not place floppy disks on the speakers. The speakers' magnetic field may damage the data stored on the floppy disks.**

### To connect speakers to your computer

1. Turn down the volume of the speakers.
2. Plug the speaker cable into the Headphone jack on the computer.
3. Plug the other end of the speaker cable into the speaker.

***Connecting Speakers***




See the guide that accompanied your speakers for more information on its installation and use.

## Disconnecting speakers

You can disconnect external speakers when the computer is on or off. Simply unplug the speaker cable from the Headphone jack on the computer.

## Adjusting the volume

To adjust the volume for playing CDs and DVDs, use the **Volume** icon on the Windows® taskbar. Adjusting the volume for playing CDs or DVDs does not adjust the volume for recording to CDs or DVDs.

You can only adjust the recording volume in the **Recording Control** window. See Using a microphone to record sound for instructions on how to open this window.

### To adjust the volume of your speakers

1. Right-click the **Volume** icon on the Windows® taskbar, and select **Open Volume Control**. The **Volume Control** window appears.
2. Click and drag the **Volume Control** slider up to increase volume and down to decrease volume.
3. Click to cancel any **Mute** check boxes that are selected.

| Sound device | Function |
|---|---|
| Volume Control | Adjust the sound level from the speakers or headphones. |
| Wave | Adjust the wavfile sound or the system sound of Windows. |
| SW Synth | Adjusts the internal or external synthesizer volume. |
| CD Player | Adjust the volume of the CD in the optical drive. |
| Microphone[1] | Adjust the internal or external microphone volume. |
| Telephony[1] | Adjust the modem or telephone volume. |
| PC Beep[1] | Adjust the beep sound when inserting or removing the PC Card and other devices. |
| Line[1] | Adjusts the sensitivity of volume input. |

[1] On selected models only.

As a shortcut, you can press the **Fn+F4** keys to increase the volume and Fn+Shift+F4 keys to decrease volume. You can also press the **Fn+F3** keys to toggle the mute option on and off.

## Enabling the audio feature

If you do not hear sound when playing a CD or DVD, you may need to enable the audio feature.

**To enable the audio feature**

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.
2. Click **Performance and Maintenance**, and click **System**. The **System Properties** window appears.
3. Select the **Hardware** tab, and click **Device Manager**. The **Device Manager** window, which lists the hardware devices, appears.
4. Double-click **DVD/CD-ROM drives**.
5. Double-click the listed drive name, and click the **Properties** tab.
6. Click the **Enable digital CD audio for this CD-ROM device** check box if it is not already selected.

## Frequently asked questions

### Why won't my speakers work?

- Make sure the speakers are properly connected and the volume is turned up loud enough to hear sound.
- Your speakers may not be designed for computer use.
- If the speakers have a mute button, set the button to off.
- If the speakers have a volume control, make sure the volume is turned up loud enough to hear sound.
- If you have connected an audio cable to the Headphone jack, disconnect the cable and use the speaker cable that was supplied with the speakers.
- If you are using battery power, make sure the battery(s) is inserted properly and is charged. See Using the Battery for more information.
- If the speakers require external power, make sure the speakers are connected to a power source. See the guide that accompanied the speakers for more information.

### Why can't I hear sound from my speakers?

- If the computer is using battery power, make sure the battery is properly inserted and is charged. See Using the Battery for more information.
- If you are using a program that has its own volume control, make sure the volume control is properly set. See that program's help guide for more information.
- Your speakers may be set to mute, the volume setting may be too low, or the audio option may be disabled. See Adjusting the volume and Enabling the audio feature for more information.

### Why don't the Fn+F3, Fn+F4, or Fn+Shift+F4 key combinations work?

The Fn+F3 keys toggle the built-in speakers on and off. The Fn+F4 keys adjust the built-in speaker volume. The computer may not recognize the Fn+F3 and Fn+F4 keys if the correct speakers are not selected. Follow these steps:

1. Right-click the **Volume** icon on the taskbar, and select **Adjust Audio Properties**.
2. On the **Volume** tab, click **Advanced** in the **Speaker settings** box. The **Advanced Audio Properties** window appears.
3. On the **Speakers** tab, select the correct speaker setup from the **Speaker setup** drop-down menu.

## Using Microphones

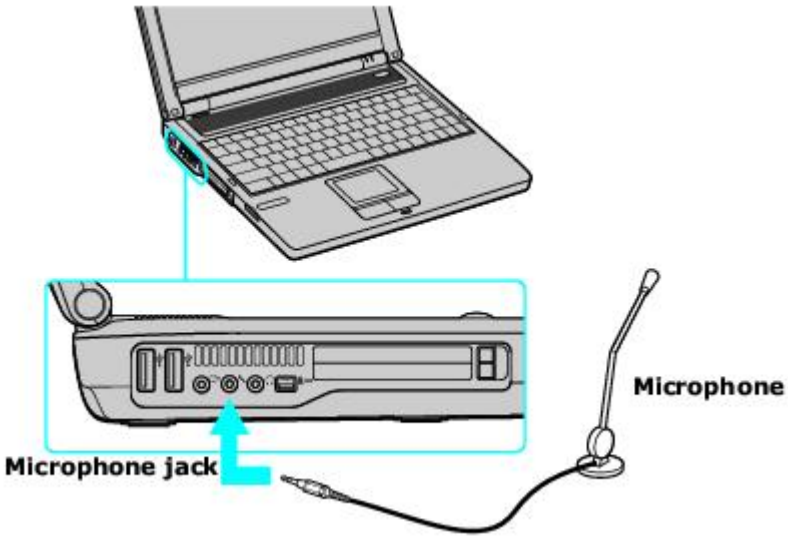
You can connect an external microphone to your computer to enhance the sound input to your computer. Make sure your microphone is designed for computer use. If you wish to purchase a microphone, shop Sony online at http://www.sonystyle.com/vaio or contact your local retailer.

- Connecting a microphone
- Disconnecting a microphone
- Using a microphone to record sound
- Frequently asked questions

## Connecting a microphone

Plug the microphone cable into the Microphone jack[1] on the computer.

***Connecting a Microphone***




See the guide that accompanied your microphone for more information on its installation and use.

[1] A protruding dot located next to the Microphone jack distinguishes this jack from the Headphone jack.

## Disconnecting a microphone

You can disconnect an external microphone when the computer is on or off. Simply unplug the microphone cable from the Microphone jack on the computer.

## Using a microphone to record sound

You can record messages, memos, etc. by connecting a microphone to the Microphone jack[1] on your computer.

### To record from a microphone

1. Double-click the **Volume** icon on the Windows® taskbar. The **Volume Control** window appears.
2. From the **Options** menu, click **Properties**. The **Properties** dialog box appears.
3. Click to select the **Recording** option in the **Adjust volume for** box.
4. In the **Show the following volume controls** box, make sure **Microphone** is selected.
5. Click **OK**. The **Recording Control** window appears.
6. Click the **Select** check box at the bottom of the **Microphone** column, if it is not already selected. Close the **Recording Control** window.
7. Click **Start**, and select **All Programs**, **Accessories**, **Entertainment**, and then **Sound Recorder**. The **Sound - Sound Recorder** window appears.

For help using Sound Recorder, click **Help** in the **Sound Recorder** window.

### To adjust the volume for recording sound

You can only adjust the volume for recording in the **Recording Control** window.

1. Right-click the **Volume** icon on the taskbar, and select **Adjust Audio Properties**.
2. On the **Audio** tab, click **Volume** in the **Sound recording** box. The **Recording Control** window appears.
3. Click and drag the **Microphone** slider up to increase volume and down to decrease volume.

[1] A protruding dot located next to the Microphone jack distinguishes this jack from the Headphone jack.

## Frequently asked questions

### Why doesn't my microphone work?

If you are using an external microphone, make sure the microphone is turned on and is properly plugged into the Microphone jack on the computer. See Connecting a microphone for more information.

# Memory Upgrades

Before you upgrade your computer's memory, make sure you read the safety information in Precautions and Procedures. For the type of module and amount of memory installed on your computer, see the Welcome page to view the VAIO® Computer Specifications.

- Precautions and Procedures
- Removing and Installing Memory Modules
- Confirming Added Memory Capacity

## Precautions and Procedures

**Sony recommends that memory upgrades be performed by an authorized Sony Service Center. To find the nearest center or agent, go to: http://www.sony.com/pcsupport.**

The procedures described below assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment. When installing a memory module in your computer, make sure you read the proper safety precautions below. Mistakes that occur when installing or removing a memory module may cause a malfunction.

- Turn off the computer. Disconnect the computer from its power source and from any telecommunications links, networks, or modems before you install or remove a memory module. Failure to do so may result in personal injury or equipment damage.
- Introducing any liquids or any foreign substances or objects into the memory slots, or other internal components of the computer, will result in damage to the computer.
- Electrostatic discharge (ESD) can damage disk drives, memory modules, and other components. Perform the procedures described below only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for example). Ground yourself by momentarily touching an unpainted metal object that is grounded, such as a pipe, radiator, or faucet.
- Do not open the memory module package until you are ready to install the module. The package protects the module from ESD.
- Use the special protective package to store a memory module and prevent ESD.
- Only use memory modules that are compatible with your computer. For the type of module and amount of memory installed on your computer, see the Welcome page to view the VAIO® Computer Specifications. If you wish to purchase a memory module, shop Sony online at http://www.sonystyle.com/vaio or contact your local retailer.

# Removing and Installing Memory Modules

Make sure you read the safety information in Precautions and Procedures before you remove or install a memory module. When installing a memory module, do not open the module package until you are ready to install it. The package protects the module from Electrostatic discharge (ESD).

For memory upgrades and information about which memory modules to use, refer to your VAIO® Computer Specifications on the Welcome page.

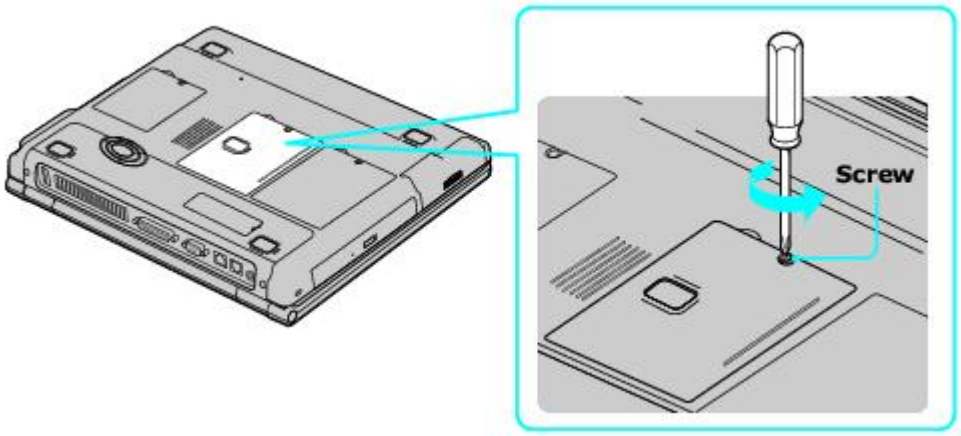
**To remove a memory module**

1. Turn off the computer and all attached devices.
2. Disconnect the power cord, all cables, and remove the battery if it is installed. See "To remove the battery."
3. Wait for the computer to cool down.

   The interior of the computer becomes extremely hot during operation. Wait at least one hour for the computer to cool down before you remove the screws.
4. Turn the computer over and use an appropriate screwdriver to loosen and remove the screw(s) on the memory bay.

   **To avoid damaging the computer, do not remove or loosen any other screws.**

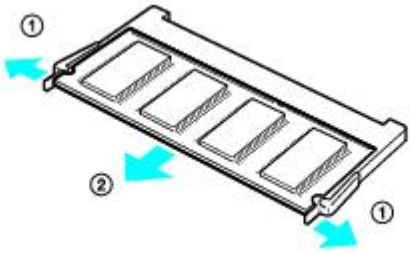
***Removing the Bottom Screw(s)***




5. Touch a metal object (such as the connector panel on the back of your computer) to discharge static electricity.

   **Avoid touching any part of the motherboard or other components inside the computer.**
6. Remove the memory module by pulling out the tabs (see arrows No. 1), and pulling out the module in the direction of arrow No. 2. See To install a memory module for more information.

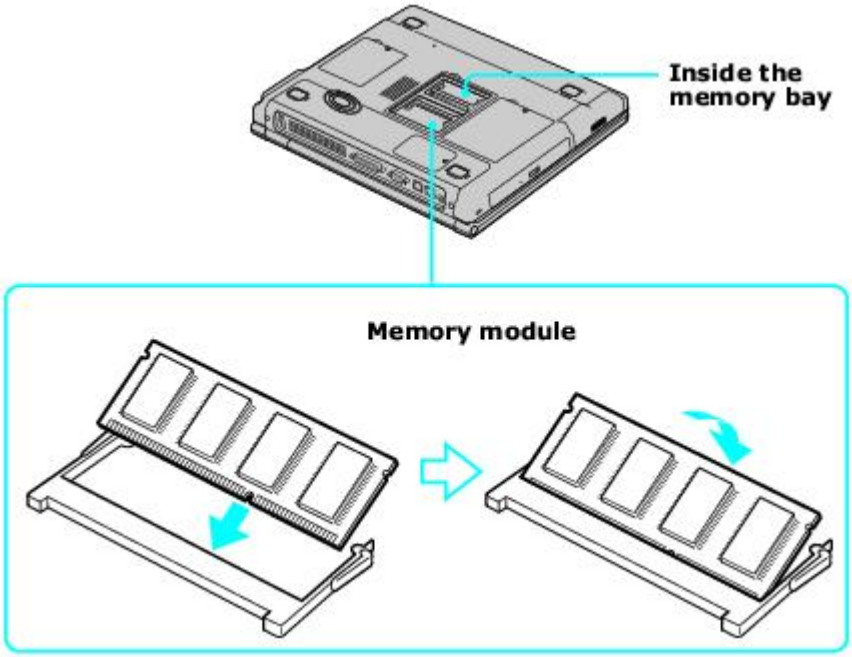
***Removing a Memory Module***




**To install a memory module**

1. Remove the new memory module from its packaging, and install the memory module by sliding it into the open slot at a 45-degree angle. See To remove a memory module.

***Installing a New Memory Module***




2. Push the module down until it snaps into place.
3. When the module is correctly seated, close the memory bay.
4. Replace the fastening screw(s) on the memory bay.
5. Make sure the system recognizes the new memory module. See Confirming Added Memory Capacity for more information.

## Confirming Added Memory Capacity

After you've installed a new memory module, make sure the operating system recognizes it.

**To check your system's memory**

1. Turn on or restart the computer.
2. Click **Start** on the Windows® taskbar, and click **Control Panel**.
3. Click **Performance and Maintenance**, and click **System**. The **System Properties** window appears.
4. On the **General** tab, you can view the amount of system memory.

***System Properties Window***

5. If the additional memory is not shown, remove and reinstall the memory module.

**The displayed memory may be less than the installed memory due to the amount used by the display adapter.**

# Troubleshooting

This section describes how to solve some basic problems you may encounter when using your computer. For more troubleshooting topics refer to the VAIO® Computer User Guide. Many problems have simple solutions, so refer to these sources before you contact Sony Computing Support (http://www.sony.com/pcsupport).

- Troubleshooting Your Computer
- Support Options

**What do I do if my computer won't start?**

- Make sure the computer is securely plugged into a power source and turned on. Make sure the power indicator shows the power is on.
- Make sure the battery is inserted properly and charged.
- Make sure the floppy disk drive (if applicable) is empty.
- If the computer is plugged into a power strip or uninterruptible power supply (UPS), make sure the power strip or UPS is turned on and working.
- If you are using an external display, make sure it is plugged into a power source and turned on. Make sure the brightness and contrast controls are adjusted correctly. See the guide that came with your display for details.
- Disconnect the AC adapter and remove the battery. Wait one minute. Reattach the AC adapter and reinsert the battery. Turn on the power.
- Condensation may cause the computer to malfunction. If this occurs, do not use the computer for at least one hour.
- If the computer still does not turn on, follow these steps:

  1. Unplug the power cord and remove the battery.
  2. Use a thin, straight object (such as a paper clip) to press the reset button. For location information, see "Locating Controls and Ports" in the "Setting Up" chapter of your printed VAIO® Computer Quick Start guide.
  3. Reinsert the power cord and the battery.
  4. Turn on the computer.

**What do I do if a BIOS error appears when my computer starts?**

If the message "Press <F1> to resume, <F2> to setup" appears at the bottom of the screen, follow these steps:

1. Press **F2**. The **BIOS Setup** menu appears.
2. Set the date (month/day/year). Press **Enter**.
3. Press the **Down Arrow** key to select **System Time**, and then set the time (hour: minute: second). Press **Enter**.
4. Press the **Right Arrow** key to select the **Exit** tab, and then press the **Down Arrow** key to select **Get Default Values**. The message **Load default values for all SETUP items** appears.
5. Press **Enter**. The **Setup Confirmation** window appears.
6. Select **Yes**, and press **Enter**.
7. Select **Exit (Save Changes)**, and press **Enter**. The **Setup Confirmation** window appears again.
8. Select **Yes**, and press **Enter**. The computer restarts.

If this occurs on a regular basis, contact Sony Computing Support (http://www.sony.com/pcsupport).

**What do I do if the message "Operating system not found" appears when my computer starts, and why won't Windows start?**

- Make sure the computer does not have a "non-bootable" floppy disk in the floppy disk drive (if applicable).
- If a non-bootable floppy disk is in the drive:

  1. Remove the floppy disk.

2. Restart the computer and confirm that the Microsoft® Windows® operating system starts properly.

- If Windows still does not start, follow these steps to initialize the BIOS:

1. If there is a disk in the floppy disk drive, then remove it.
2. Turn off the computer.
3. Remove any peripheral devices connected to the computer.
4. Restart the computer.
5. Press **F2** when the Sony logo appears. The **BIOS Setup** window appears.
6. Press the **Right Arrow** key → to select the **Exit** menu.
7. Press the **Down Arrow** key ↓ to select **Get Default Values**. The message **Load default values for all SETUP items** appears.
8. Press **Enter**. The **Setup Confirmation** window appears.
9. Select **Yes**, and press **Enter**.
10. Select **Exit (Save Changes)**, and press **Enter**. The **Setup Confirmation** window appears again.
11. Select **Yes**, and press **Enter**. The computer restarts.

⚠ **The System Recovery CD restores your computer to its original state, so user data and applications will be lost.**

**Why does my computer stop responding? Why can't I turn off my computer?**

It is best to turn off your computer using the Turn Off Computer option on the Microsoft® Windows® Start menu, located on the taskbar. Using other methods, including those listed below, may result in loss of unsaved data.

- Click **Start** on the Windows® taskbar, select **Turn Off Computer**, and then click **Turn Off**.
- If your computer does not turn off, press the **Ctrl**+**Alt**+**Delete** keys simultaneously. When the **Windows Task Manager** dialog box appears, click **Turn Off** from the **Shut Down** menu.
- If your computer still does not turn off, press and hold the power button or slide and hold the power switch until the computer turns off.
- If your computer stops responding while playing a CD or DVD, press the **Ctrl**+**Alt**+**Delete** keys simultaneously. You can turn off the computer from the **Windows Task Manager**.

✍ Pressing the **Ctrl**+**Alt**+**Delete** keys simultaneously or turning off the computer with the power button or switch may cause loss of data.

- Remove the AC adapter and battery.

**Why won't my computer enter Standby or Hibernate mode?**

Your computer may become unstable if the operating mode is changed before the computer completely enters Standby or Hibernate.

To restore the computer to normal operating stability:

1. Close all open programs.
2. Restart the computer. Follow these steps:
   1. Press the **Windows** key .
   2. Press **U**.

3. Press **R** to select restart.

3. If the computer does not restart, follow these steps:

    1. Press the **Ctrl**+**Alt**+**Delete** keys simultaneously. The **Windows Task Manager** window appears.

    2. Press and release **Alt** to highlight the menu bar, and press the **Right Arrow** → key to select Shut Down.

    3. Press **Enter**.

    4. Press **R** to select restart.

4. If this procedure does not work, press and hold the power button or slide and hold the power switch until the computer turns off.

**Why is the sound of my computer's fan so loud?**

The computer's fan may be running at a high speed to cool the CPU. By lowering the CPU speed, you also lower the speed and noise level of the computer's fan. If your computer comes with the PowerPanel utility, use it to lower the CPU speed. If your computer does not come with the PowerPanel utility, use the power schemes to lower the CPU speed.

To lower the CPU speed using the power schemes:

1. Click **Start** on the Windows® taskbar, and click **Control Panel**.

2. Click **Performance and Maintenance**, and click **Power Options**. The **Power Options Properties** window appears.

3. Select **Portable/Laptop** in the **Power schemes** box.

4. Click **Apply**.

5. Click **OK**.

**Why does the System Properties dialog box display a slower CPU speed than the maximum?**

This is normal. Because your computer's CPU utilizes a type of CPU speed controlling technology for power conservation purposes, System Properties may display the CPU's current speed instead of the maximum speed.

**Why don't my changes appear on the computer screen (LCD)?**

You may need to refresh the computer screen. Press and hold the **Windows** key , and press **D** twice.

**What do I do if my program stops responding or crashes?**

- Try restarting your computer.

    1. Click **Start** on the Windows® taskbar, and click **Turn Off Computer**.

    2. Click **Restart**.

- If restarting your computer does not work, contact the software publisher or designated provider for technical support. See Support Options for contact information.

**Which program do I use for CD-R/CD-RW functions?**

- To write data files to a CD-R or CD-RW disc, use the Microsoft® Windows® operating system software on your computer.

- To write audio files to a CD-R or CD-RW, use the Sony SonicStage program preinstalled on your computer. Follow these steps to open Sony SonicStage:

    1. Click **Start**, and then click **All Programs**.

    2. Point to **SonicStage**, and then click **SonicStage** from the submenu.
    For more information about the SonicStage program, see the SonicStage online help.

[1] Available on selected models.

## Support Options

If you have questions about your computer or the preinstalled programs, refer to the following sources for answers in the sequence listed below.

### 1 VAIO® Computer User Guide

The on-screen VAIO® Computer User Guide and the printed VAIO® Computer Quick Start provide information on how to maximize your computer capabilities and solve common problems.

### 2 Program Guides and Help Files

The preinstalled programs on your computer may come with individual help guides. These guides are stored on the hard disk as on-screen Help files. You can find the Help files from the Help menu under the specific program.

### 3 Operating System Online Support

Your computer comes preinstalled with a Microsoft® Windows® operating system. For operating system support, you can visit Microsoft® customer support at: http://support.microsoft.com/directory/.

### 4 VAIO Support Agent

You can find VAIO Support Agent by clicking **Start** and **All Programs** (**Programs** for Windows® 2000) and **VAIO Support** and **VAIO Support Agent**. Using advanced diagnostic technology, Sony's VAIO Support Agent runs scheduled protections of your programs, network settings, and other important program settings. When your program is protected, you can use VAIO Support Agent to repair program problems by restoring the program to any of the previously protected states.

### 5 Sony Computing Support

This service provides instant access to information on commonly encountered problems. Type a description of the problem and the Knowledge Database searches for the corresponding solutions online. You can visit Sony Computing Support at: http://www.sony.com/pcsupport.